Valedictory Address
ON
ANTISEPTIC MIDWIFERY.

Delivered before the British Gynæcological Society on Jan. 14th, 1897,

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GENTLEMEN,—It has been customary at this meeting of the Society for the outgoing President to deliver a valedictory or farewell address, and the subject not infrequently taken has been a review of the work done by the Society during the past year. Your last two Presidents, Professor Savage and Mr. Jessett adopted this plan, and last January in my address—not a valedictory one, however, owing to your having paid me the compliment of electing me to occupy the chair for a second year—I followed their example. But now, in order not to make this appear an established custom, I am taking a different course. One of your former Presidents, Dr. Grigg, Physician to Queen Charlotte's Lying-in Hospital, at the end of his inaugural address, said "the lateness of the hour prevents my touching upon the question of the influence of antiseptics during parturition. I believe that it will be found that antiseptics have revolutionised the rules of obstetric practice." Another of your past Presidents, Dr. Bantock, quite recently writes[1]: "He asks me to explain the marvellous effects of the antiseptic method in midwifery practice; I say they are due to the adoption of the principle of cleanliness, and on the contrary side would call his attention to the large number of deaths due to poisoning by corrosive sublimate which medical literature affords." The opinions of your two past presidents are so at variance with one another, that I thought I could not do better than take up this subject for my address this evening, and give you some account of the City of London Lying-in Hospital, and the results to the patients, which have not yet been published except in the annual reports of the hospital, in order to corroborate the testimony given respecting the General Lying-in Hospital since corrosive sublimate was introduced there as an antiseptic by Sir John Williams and Dr. Champneys in May, 1884, who followed the example which had been set by Dr. Tarnier in the Maternity Hospital in Paris.

It was the publication of the admirable results obtained by the physicians at the General Lying-in Hospital that decided us to discard carbolic acid in favour of corrosive sublimate as our antiseptic, when the City of London Lying-in Hospital was re-opened on July 1st, 1886, after having been closed for a short period for thorough cleansing, as was the annual custom. The strength of the solution used was 1 in 1000 for the hands of the attendants, and 1 in 2000 for vaginal irrigation. I gave a full account of how it was employed in a lecture I delivered at the Midwives' Institute and Trained Nurses' Club on Oct. 14th, 1887, which was subsequently published and distributed among the midwives and nurses in pamphlet form; and, except in small details, it has been used in the same manner up to the present time, Dec. 31st, 1896, just ten and a half years, on 4608 women, without a suspicion of mercurial poisoning in one.[2] Therefore I think we may at once dismiss the idea of any risk of poisoning in the way in which it is now used, and should be used, and it will probably be found that what Dr. Bantock refers to relates to when intra-uterine injections were employed of a strength of 1 in 1000, or stronger, such as those reported by Dr. Dakin in a paper on Mercurialism in Lying-in Women undergoing Sublimate Irrigation, read at the meeting of the Obstetrical Society of London in December, 1886. Dr. Dakin brought the subject forward not with the view of advocating the discontinuance of its use, but to endeavour to elicit the best means of employing it with safety, for he says, "the results at the General Lying-in Hospital have been such as to make the physicians loth to dispense with it."

In an admirable address[3] by Dr. Cullingworth on "Puerperal Fever a Preventable Disease," he says: "Until the year 1877 this hospital [the General Lying-in Hospital] was scarcely ever free from puerperal fever, and the mortality, always high, occasionally became fearful. In 1838 of 71 women delivered 19 died; in 1861 14 died out of 195; and in 1877 9 out of 63. On several occasions the hospital had to be closed for long periods, and thousands of pounds were spent on the sanitary improvement of the building. In October, 1879, this institution, having been closed for two years, was re-opened, and has since been conducted on antiseptic principles, the details varying from time to time as increased knowledge and experience have dictated. Mark the result," and he gives the following table:—

Period.	Deliveries.	Deaths.	Average death-rate from all causes.
			Per cent.
1833 to 1860	5833	180	1 in 32½ = 3·088
1861 to 1877	3773	64	1 „ 58¾ = 1·696
1880 to 1887—antiseptic period	2585	16	1 „ 161¼ = 0·618

This last period of eight years takes in three varieties of antiseptics used, first carbolic acid, next permanganate of potash, and finally corrosive sublimate. Dr. Boxall, in a masterly paper read at the June and July, 1890, meetings of the Obstetrical Society, (which I recommend to the attention of you all) gives another period, from the time corrosive sublimate alone was used—May 1st, 1884, to June 30th, 1889, 2150 deliveries, 9 deaths, 1 in 239 = 0·418 per cent.—a much greater diminution in the death-rate.

I propose to contrast the results at the City of London Lying-in Hospital from the time that I became connected with it, in March, 1870, up to the end of April, 1886—a period of 16 years—with that commencing July 1st, 1886, when corrosive sublimate as the antiseptic came into use there, up to Dec. 31st, 1896—a period of 10½ years,—and I think you will find that it thoroughly bears out what Dr. Cullingworth has said in his address and what Stadfelt of Copenhagen has expressed, his opinion being emphatically endorsed by Dr. Boxall in his paper to which I have referred,—"the belief that the hygiene of a maternity depends less upon its construction and its age than upon the hygienic principles upon which it is directed and upon the perseverance with which these principles are carried out in the daily practice." For you will learn that while structural alterations failed to improve the condition at the City of London Lying-in Hospital, hygienic principles and, markedly, the employment of corrosive sublimate produced an extraordinary change for the better.

I will say a few words about the hospital itself, and my connexion with it. The present building was erected in the City-road, at the corner of Old-street, in 1771, and was opened for the reception of patients on March 31st, 1773—so that it is 124 years old. There is not now, nor has there ever been, a house surgeon: the chief resident is termed matron and midwife. There is only one medical officer in charge, who resides in the neighbourhood and visits the hospital daily and whenever required. He is termed the surgeon-accoucheur. I took over the duties of this office in March, 1870, though I was not permanently appointed to fill it till the following July. There are two other medical officers, a consulting physician and a consulting surgeon. These are not complimentary honorary appointments as the term "consulting" often implies. The surgeon-accoucheur is expected to call to his aid the consulting physician whenever he is in difficulty in a delivery or in any case of serious illness, and he has the consulting surgeon to appeal to in any case that is surgical outside midwifery and gynæcology. Both these medical officers have a seat on the managing committee. I resigned my appointment of surgeon-accoucheur in 1871, and in 1872 was elected from among the governors a member of the committee of management, the meetings of which I attended as regularly as possible up to July, 1881, when Dr. Greenhalgh resigned his office of

[1] Medical Press and Circular, Nov. 18th, 1896.

[2] A vaginal douche of 1 in 2000 at a temperature of 115° is given immediately after the delivery of the placenta, and three similar douches subsequently at intervals of night and morning; then iodine douches are given instead of sublimate.

[3] Delivered at St. Thomas's Hospital, London, and published by J. & A. Churchill, 1888.

consulting physician, and I was appointed in his place; so that it will be seen that for nearly twenty-seven years I have taken an active part in the affairs of the hospital.

In 1870, when I took over the medical charge, the patients were dying in the proportion of 1 in 19—12 deaths occurring among the 227 women delivered—so that as soon as possible, seconded by Dr. Greenhalgh, I appealed to the committee to close the hospital. Its doors were shut on June 15th for three months in response to our entreaty. I immediately set to work to endeavour to discover the defects and get them rectified as far as possible, and what was done is recorded in the Annual Report for 1870. "Your committee have had the building painted and coloured throughout, have done away with all the old bedsteads, and replaced them with iron ones without curtains. Palliasses and hair mattresses have been provided in the place of the old feather beds, and all other furniture likely to retain infection has been removed. In fact, the wards have been almost entirely re-furnished. Your committee have also had all the drains opened and double trapped at all the gratings and down spouts, and all cesspools filled with concrete. The wards have been thoroughly fumigated with chlorine gas and every means has been used to get rid of all infection." The result was that, from the re-opening on Sept. 21st to the end of the year, 103 women were confined with only one death, reducing the mortality for the whole year to 1 in 25. In 1873 it was 1 in 50, and in 1876 and 1877, the two years taken together, 1 in 45, so that, on Nov. 24th, 1877, the medical officers again appealed to the committee to close the hospital. This was done on Dec. 1st. "It was resolved that Dr. de Chaumont of Netley be requested to inspect the hospital, and report on the ventilation and drainage with a view to their improvement." The result of this was that great alterations were made, at an outlay of upwards of £4 500. The hospital, in its reconstructed form, was re-opened on April 16th, 1879, after having been closed for sixteen months—and with what result? 287 women were delivered during the remainder of the year with only one death. But what a crushing disappointment came next year (1880); twelve deaths among 383 women delivered—one in thirty-two; and eleven of these were in the first half of the year, out of 196 deliveries—one in nineteen. Does not this bear out the opinions I have expressed in the earlier part of my address as to structural improvements.

In the following year, 1881, there was again a large expenditure in this way, nearly £600, and with what result! At a meeting of the committee held on April 28th, 1882, the medical staff reported that the sanitary condition of the hospital was very unsatisfactory and recommended that it be closed at once. The committee then resolved forthwith to act upon the advice of the medical officers, and appointed a sub committee to inquire into the cause of the evil complained of. After several meetings the sub-committee presented a report to a special Court of Governors on June 2nd, recommending that the hospital be pulled down and rebuilt. Fancy this, after a recent expenditure of upwards of £5,000 on the buildings. The special court, however, took exception to this report and passed a resolution appointing a sub-committee from among the governors to cooperate with the committee of management "to report upon the present system of management adopted at the hospital." After several meetings the following report was presented: "It is recommended that the hospital be thoroughly inspected as to sanitary arrangements, and that it be at once cleansed, whitewashed, &c., and re-opened as soon as possible, and that it be closed for thorough cleansing for a month every year. That the back part of the hospital be pulled down and a one-storeyed building be put up, together with other alterations, at a cost not exceeding £1000." This was done and the hospital was partially re-opened on Oct. 1st, after having been closed for five months.

But, little more than five months later, on Feb. 17th, 1883, in consequence of the unhealthy state of the wards, the committee, on the recommendation of the medical staff, again closed the hospital and appointed a sub-committee to inquire into the sanitary condition of the hospital generally. Their report was to this effect: "That, as far as the construction of the hospital is concerned, no alteration is required. That certain improvements recommended by Dr. Pavy, the medical officer of health, be effected as regards the soiled linen shoots. That the wards be at once disinfected, cleaned, and whitewashed, and that the hospital be re-opened as soon after April 1st as possible." There were some other less important recommendations. The hospital was re-opened on April 20th, and between that date and the end of the year 209 women were delivered with but two deaths, 1 in 104, and yet, in the two years 1882-83 taken together, the mortality rose to no less than 1 in 23. In 1884-85 combined it was 1 in 43. In 1886, up to the closure on May 14th, 3 women died out of the 133 delivered, 1 in 44—and now we come to the period when the sublimate treatment commenced.

From the re-opening under its beneficial influence on July 1st, 1886, to Sept. 30th, 1887, 420 confinements took place without any death. From the same date, July 1st, 1886, to Dec. 31st, 1896 (ten and a half years) 4608 women were delivered with 11 deaths: mortality 1 in 419, or 2·387 per 1000. From Jan. 1st, 1892 to Dec 31st, 1896 (five years), 2392 deliveries with 3 deaths—1 in 797 = or 1 250, i.e., 1¼ per 1000, and these deaths were: 1. Sudden death in 1893 from pulmonary embolism on the third day after delivery (patient had shown no signs of illness up to the occurrence: and the report of the necropsy by Dr. Tooth, Demonstrator of Morbid Pathology to St. Bartholomew's Hospital, was "embolism of the pulmonary artery; no septic condition present.") 2. The second death occurred in 1894, from puerperal eclampsia, and took place on the third day after delivery. 3. The third death occurred in 1895 from puerperal eclampsia the day after delivery. So that we have in 1892, 487 deliveries with no death; in 1893. 430 deliveries with 1 death from pulmonary embolism; in 1894, 492 deliveries with 1 death from eclampsia; in 1895, 490 deliveries, with 1 death from eclampsia; in 1896, 493 deliveries with no death. Such a low rate of mortality as this one cannot expect to maintain, when it becomes a matter of fortune how many deaths from non-preventable causes may arise, such as the three from eclampsia and pulmonary embolism met with in the last five years. Only on Dec. 26th last I was called to the hospital to a severe case of eclampsia; the patient has happily recovered, but had she died it would not have enabled me to say we had had no death in the year 1896, and it would have increased the rate of mortality in the last five years.

Thus it will be seen that in the last five years among 2392 deliveries there has been no death in which septicæmia could have borne any part; and there has been also very little illness during this time. In the past year I have only been asked to see one patient who had a high temperature, and she was discharged quite well. I am assured that all the patients have been in a satisfactory state of health before they were allowed to leave the hospital. A total mortality of 1¼ per 1000 is, indeed, I think, something to be proud of—5 in 4000—and no death from septic causes. This seems to justify the title of Dr. Cullingworth's address, "Puerperal Fever a Preventable Disease"; rather different to the time of my introduction to the City of London Lying-in Hospital, when 1 in 19 was dying.

I do not dispute for one instant the great share that cleanliness plays in these results. My late colleague, Dr. Matthews Duncan, spoke of antiseptic precautions as transcendental cleanliness.[4] He had, he said, always defended the good or the better hospitals, and he was proud to know that now, when thoroughly antiseptically managed, they needed no defence. Their mortality was equal to, if not less than, that of private practice. During his whole life he (Dr. Matthews Duncan) had watched the generous and persevering attempts of his brethren to improve midwifery hospitals. Long ago, in Dr. Rigby's time, he came to London and saw a great ventilating scheme which was to work wonders. Architectural arrangements, drainage, ventilation, segregation and drugs had all been tried and all without securing success. The mortality in hospitals was terrible. He did not know what it was in private practice; probably it was as bad, or nearly as bad, as in big hospitals. Antiseptics and antiseptics alone, had brought success and had sustained success. It was, he knew, common in highly respected quarters in London to attribute this modern success or diminished mortality in general hospitals, as in lying-in hospitals, to many factors—to improved feeding, housing, cleanliness, nursing, and antiseptics; and no doubt all were important, but all had failed till the antiseptic era, and all would fail again were antiseptic precautions—transcendental cleanliness—neglected. In his valuable book, "Mortality of

[4] Transactions of the Obstetrical Society, vol. xxvii, p. 215. Discussion on Dr. (now Sir) W. O. Priestley's paper, Antiseptics in Lying-in Hospitals.

Childbed and Maternity Hospitals,[5] Dr. Matthews Duncan says: "In a well-managed hospital they die at the rate of 1 in 100; all the country over the mortality is probably not much less, in the best private practice it appears to be greater." "In the years of my private practice of which I have preserved records I find 8 deaths in 736 cases, or 1 in 92." This was written in 1870, before antiseptic midwifery came in practice.

Why the sublimate treatment should not be adopted in private practice as well as in hospitals I am at a loss to understand. In my lecture to the midwives that I have spoken of, given in 1887, I gave them a list of what I order to be ready in the house of every patient who expects me to attend her in her confinement, and amongst the things was what would make half a gallon of sublimate solution (1 in 1000), labelled "To be used with an equal part of hot water as a lotion"; and I have continued this, very much to my satisfaction, ever since, and I have used the irrigation just as in the hospital practice and have never seen a sign of mercurial poisoning. In July, 1881, I had the great misfortune to lose my first private patient, and from puerperal septicæmia. This was before the days of sublimate and sterilising instruments, but not before the introduction of other antiseptics, and every precaution had been taken by the use of carbolic lotion and carbolised cream. It was a forceps delivery after forty hours labour in a primipara; an occipito posterior presentation; and the perineum was partially ruptured. She became feverish after a rigor on the fourth day and died on the thirteenth day after delivery. The most unremitting attention failed to save her life. I cannot tell you the distress the loss of this patient—a young wife—caused me. Only those of you who have had similar losses can realise what it was. I told you in my address last January of a case of puerperal peritonitis in a patient delivered in December, 1890, who was attended by me under the most strict sublimate lines. It was a genuine case of acute septic peritonitis occurring a few hours after delivery, and although no necropsy was made, I feel convinced, from the reasons I gave you, that it was caused by rupture of a pyosalpinx, as in those cases narrated by Dr. Michie of Nottingham in his paper read before this society in May, 1885.[6] If this case be excepted, no case of septicæmia has occurred in my private practice since I commenced the use of corrosive sublimate. It gives me a feeling of protection I cannot over-estimate. I feel sure if its employment in midwifery were generally adopted by practitioners for their hands and for vaginal irrigation the Registrar-General's reports of the mortality from puerperal septicæmia would very soon show a difference, and in these days of portable compressed drugs there is no reason why it should not be almost universally used, even among the very poor. To my mind it would be a great pity if Dr. Bantock's recent reference to mercurial poisoning were to deter practitioners from employing it. It is only right, however, that it should be pointed out to them what may result if it be *improperly* used.

In the annual report of the General Lying-in Hospital for 1883 the medical report, signed by Dr. (now Sir John) Williams and Dr. Champneys, says that 342 women were confined, of whom 3 died (1 in 114), 2 from septicæmia, quite independent of one another, "a percentage which testifies to the healthy condition of the hospital." This was during the time that antiseptics were employed there, but, you will note, before the corrosive sublimate was commenced, and the committee add in presenting this medical report to the governors: "The committee beg to tender their congratulations to the eminent surgeon to the hospital, Sir Joseph Lister, Bart., to whom this and other institutions are so much indebted for the satisfactory medical results obtained through the system with which his name is associated."

Sir William Priestley concluded his paper read before the Obstetrical Society of London in July, 1885, entitled "Notes of a Visit to some of the Lying-in Hospitals in the North of Europe; and particularly on the Advantages of the Antiseptic System in Obstetric Practice," with these words: "Ample funds and sufficient space are necessarily most potent aids in waging warfare with disease in hospitals, but, even with limited means and space, absolute cleanliness, *supplemented by the antiseptic system*, may in our own country have a large influence for good, and the labours of our illustrious Lister prove of equal value to the obstetrician as to the surgeon. If I am not mistaken some of our Fellows," says Sir William Priestley, "can tell us of triumphs of this kind in the lying in hospitals of London." I hope you will think that I have this evening succeeded in doing so.

I feel that I cannot conclude my address better than by saying that though numerous peerages have been conferred upon those "waging warfare" resulting in the *destruction of life* and victory (!) never has one been more worthily bestowed than on "our illustrious Lister" for the victory gained by him in "waging warfare with disease in hospitals," resulting in such an enormous *saving of life* among our fellow creatures.

I cannot sit down without congratulating the society upon its selection of my successor in this chair. Professor Mayo Robson will fill it, I am sure, with dignity, eloquence, and good judgement, that have never, at all events, been surpassed by any of his predecessors.

In bidding you farewell, I thank you all for the kindness you have displayed towards me and the assistance you have given me during the two years that I have presided over you, a period in my life of which I shall always have the happiest recollections.

[5] Edinburgh: A. & C. Black, 1870 p. 116.

[6] Pregnancy Complicated by Suppuration in the Pelvis.—British Gynæcological Journal, 1885, p. 160.

SYPHILITIC DISEASE OF THE HEART WALL.

By SIDNEY PHILLIPS, M.D., F.R.C.P. Lond.,

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A PROFESSIONAL man, aged fifty-three years, who in his youth contracted syphilis had from time to time been troubled with sores on the tongue, and in 1890 suffered from epileptiform convulsions, of which a grave prognosis was given by the physician whom he consulted, but which gradually ceased to occur. A child of his had been under treatment by a well-known surgeon for psoriasis suspected to be of syphilitic origin. At Easter, 1894, while on a few days' holiday in the country, he went to bed apparently quite well, but was suddenly taken ill in the night. The physician who was called to see him has kindly given me the following account of his symptoms: "He was walking about the room in an agony of pain which he described as unendurable. The lower part of the sternum and epigastrium were the chief seats of pain, which went through to the back and also extended down the left arm; there was no marked pallor, no cyanosis, no laboured breathing; the pulse was 60 and laboured; there were no signs of valvular mischief about the heart and no irregularity of rhythm; there was a sense of distension of the abdomen. I ascertained this was the first attack of severe pain he had had, but there had been previously some discomfort and some pain running down the arm, and that his heart had been suspected of being at fault." Recovering under the free administration of morphia, he returned to town and to work against medical advice; but eighteen days after this attack of pain, on returning home from business, he quietly expired in an arm-chair while reading the evening paper.

I made the necropsy with the medical man who had attended him from time to time in London. There were no signs of disease anywhere, except that there were about two drachms of clear fluid in the pericardial sac and some soft bands of fresh lymph about half an inch long, easily broken across, extending from the anterior wall of the left ventricle just above the apex to the adjacent surface of the pericardium; on the surface of the ventricle beneath the lymph was a small area of ecchymosis the size of a shilling. The heart wall in this situation felt harder than elsewhere, and on section this thickening was seen to be produced by a yellow homogeneous-looking substance much resembling in appearance the almond of a wedding-cake. It was situate between the endocardium within and the pericardium without, entirely replacing the muscular fibre, and formed a nodule with a diameter of that of a florin in the anterior wall of the ventricle, which it thickened and toughened. The rest of the heart and the cardiac valves were healthy, except that the left ventricle was somewhat dilated. Mr. J. J. Clarke, pathologist to St. Mary's Hospital,

TABLE OF FATAL CASES OF SYPHILITIC DISEASE OF THE HEART WALL.

No.	Reference to case.	Sex and age.	History of symptoms.	Post-mortem appearances.
1	Ricord: Clinique Iconographique, 1851.	M. 41.	Chancre ten years before he came under treatment for tertiary cutaneous ulceration; improved under iodide of potassium for eleven days. Sudden faintness and cyanosis; said, "I feel very ill," and died in five minutes.	Heart hypertrophied; clots in both ventricles; lymph on pericardium; patches of infiltration in the wall of both ventricles, especially of the right; some hard, like scirrhus, others softening, with complete destruction of muscle fibre; old ecchymoses in wall of left ventricle.
2	Virchow: La Syphilis Constitutionnelle, 1870.	M. 47.	Chancre fourteen years before; intense dyspnœa; lividity of face and extremities; respirations 48 per minute; signs of moderate hypertrophy of heart; systolic bruit at apex; death after three days of acute illness.	Left ventricle dilated and a diverticulum the size of a nutmeg near its apex with thickened endocardium and adherent thrombus; the two papillary muscles quite shrivelled; general fibroid infiltration replacing the muscle wall in right ventricle, some gummata, and an aneurysmal dilatation below the tricuspid valve, but the left ventricle chiefly affected; pericardial adhesions.
3	Lancereaux.	M. 28.	Syphilis evident from the post-mortem lesions in kidneys and liver; suffered during life great dyspnœa, fatigue, vertigo, giddiness, epileptiform attacks, palpitation, and œdema; signs of enlargement of heart; feeble pulse; ill some months; sudden death.	Left ventricle dilated and thickened extensively by an infiltration chiefly about base of the heart and mitral orifice; columnæ carneæ involved; gummata scattered in the infiltration; endocardium attacked.
4	Lancereaux.	F. 44.	Violent palpitation; fits of suffocation getting increasingly severe; violent pulsations of heart with very feeble pulse; great engorgement of veins; vomiting; systolic bruit; death from right ventricle failure.	Left ventricle healthy; right ventricle dilated and infundibulum the seat of tough infiltration stiffening its wall; in its substance little nodules (gummata) "like small-pox eruption"; rest of ventricle healthy.
5	Burney Yeo: Transactions of the Pathological Society, 1874.			Gummata involving the musculi papillares and cordæ tendineæ of left ventricle.
6	W. Cayley: Transactions of the Pathological Society, 1875.	M. 28.	History of syphilitic infection some years previously; found dead in bed: he had gone to bed in his usual health after taking from 20 to 30 grains of chloral, which he had been in the habit of doing.	Left ventricle hypertrophied, and in its wall several round nodules were projecting into the cavity of the ventricle as well as externally and involving the bases of the musculi papillares.
7	A. P. Gould: Transactions of the Pathological Society, 1877.	M. 40.	Date of infection unknown; for some time dyspnœa and cardiac pain; fell dead in a public-house after walking across some fields when in apparently good health.	Left side of heart quite healthy; right ventricle normal thickness, all trace of muscle fibre in it replaced by a whitish infiltration; it involved the septum and many of the musculi pectinati.
8	T. Barlow: Transactions of the Pathological Society, 1877.	M. 42.	Three years after infection anginal attacks lasting till death two years later; for one year before death orthopnœa, cough, swelled feet, systolic and diastolic bruits, signs of right heart engorgement.	Syphilitic infiltration of wall of left ventricle around aortic orifice and formation here of aneurysm of heart wall; not ruptured.
9	Mannino: Jornale Italiano, 1882.	M. 36.	Seven years after infection illness with dyspnœa, cough, albuminuria; systolic bruit at apex, especially over right ventricle; diagnosis of syphilitic heart disease from peculiar feeble contraction of heart and empty arteries; syphilitic skin eruption; died suddenly after nine days' illness.	Infiltration of large fibroid patches, creaking on section, in anterior wall of both ventricles; a hard fibrous cord in septum; left ventricle chiefly enlarged.
10	Henderson: Transactions of the Pathological Society, 1882.	M. 30.	Was in good health; suddenly staggered and fell, put hand to heart, and died in a few minutes; no history of angina.	A mass of fibroid tissue in the septum 2 × 1½ inches thick and muscular substance permeated by gummatous nodules; narrowing of lumen of coronary arteries; nodules in pericardium over left ventricle.
11	Goodhart: Transactions of the Pathological Society, 1887.	M. 30.	Date of infection unknown; had had a sore throat and eruptions and node on tibia; after being apparently well and quite cheerful in the evening died in his arm-chair the same night, as if he had been sleeping; a prescription for mercury found in his pocket dated nine months previously.	Gummatous infiltration of the muscle of the left ventricle, which, forming an aneurysm, had ruptured into pericardial sac.
12	Goodhart: Transactions of the Pathological Society, 1887.	F. 30.	Dropped dead in the street: supposed to have been a prostitute.	Left ventricle dilated and hypertrophied; it and the septum the seat of syphilitic infiltration.
13	Turner: Brit. Med. Jour., 1890, vol. i., p. 697.	M. 37.	Infection ten years previously; for some years precordial pain, palpitation, giddiness; increased four days before admission to hospital; cardiac dulness extended to right; rough systolic murmur at base of heart; pulse 52 and getting slower down to 40, when he died from syncope four weeks after admission to hospital.	Infundibulum three-quarters of an inch from the pulmonary valves surrounded by, and considerably contracted by, infiltration and projecting into left ventricle; left coronary artery blocked by a thrombus; gumma in testis.
14	Pitt: Transactions of the Pathological Society, 1891.	M. 28.	Had had slight pain in heart, but not enough to give up work; died suddenly while lifting a weight.	Gummatous cellular infiltration involving both ventricles, especially the left; aneurysm of posterior wall of left ventricle near apex, which had ruptured; syphilitic testis.
15	Rolleston: Transactions of the Pathological Society, 1893.	M. 34.	Death from an accident.	In right ventricle and in septum ventriculorum were many gummatous nodules; gummata in testis, and scars on penis and groin.
16	Sharkey: Transactions of the Pathological Society, 1885.	M. 44.	History of syphilis; epigastric pain, cough, short breath, feeble pulse, general dropsy.	Heart enormously hypertrophied, but very thin near apex of left ventricle, and here aneurysmal sac had formed.
17	McNalty: Medical Times, 1870.	M. adult.	Died from aneurysm of aorta.	Heart somewhat atrophied, with numerous gummata in its wall from size of a pin's head to a pea; pericardial adhesions.

TABLE OF FATAL CASES OF SYPHILITIC DISEASE OF THE HEART WALL—*continued*.

No.	Reference to case.	Sex and age.	History of symptoms.	Post-mortem appearances.
18	Moxon: Transactions of the Pathological Society, 1874, quoted by Fagge, and Guy's Hospital Reports, 1867.	M. (?)	Suddenly reeled and fell dead whilst walking across London-bridge.	Left ventricle, extensive fibroid disease; nodes of tibiæ; gummata in liver and diaphragm.
19	Fuller: Transactions of the Pathological Society, 1868.	M. 45.	Died suddenly ten minutes after having a fit in bed in a workhouse to which he had been admitted a few hours before; had gone to bed apparently well.	Extensive fibroid infiltration of wall of left ventricle completely destroying its muscular tissue; gummata in right ventricle.
20	Haldane: Edinburgh Medical Journal, 1868.	F. 25	A prostitute who, soon after eating a good supper and appearing well, died while walking downstairs.	The septum entirely destroyed by syphilitic infiltration and so also part of the wall of left ventricle; gummata in right ventricle; no other signs of syphilis.
21	Phillips: Case above recorded.	M. 55.	Infection many years previously; had had syphilitic skin eruption and other symptoms of constitutional syphilis; anginal attack eighteen days before sudden death while reading in an arm-chair.	A gumma the size of pigeon's egg in left ventricle anterior wall close to apex of heart, destroying muscular fibre and setting up slight local pericarditis.
22	Lebert.	——	Date of infection unknown, but syphilitic skin eruption, necrosis of palate and nodes on scalp; a systolic bruit.	In right ventricle close to pulmonary valves two gummata and a third a little way off; endocardium thickened over the gummata.
23	Kronig: Berliner Klinische Wochenschrift, November, 1895.	M. 36.	Oppression eight days; irregular pulse; increased cardiac dulness; systolic bruit at left apex; died whilst getting quietly into bed.	Gummata in left ventricle; aneurysmal bulging and rupture of the left ventricle near septum; the aneurysmal bulging projected septum into right ventricle.
24	London Hospital Museum, No. 1420.	M. (adult)	Distinct history of syphilis. Suddenly dropped dead while singing a song; until that moment was to all appearance in perfect health.	A soft, lobulated, gummatous growth in muscular wall of left ventricle.
25	Sir D. Duckworth: Transactions of the Clinical Society, 1895.	M. 33	Suddenly fell in the street and expired when carrying his little boy.	Evidences of previous syphilis on tongue and glans penis. Gumma in left lung; recent gummatous growth at base of left ventricle, and an older gumma near heart's apex.

found the yellow material to present the usual appearances of gummatous tissue; the heart is now in the museum of the hospital.

So long ago as 1842 Ricord[1] described two cases of syphilitic disease of the heart wall, and in his "Clinique Iconographique," Plate XXIX., he gives an admirable coloured illustration of a syphilitic heart lesion very similar to that I have just recorded. Virchow in 1860[2] described other cases, and Oppert[3] in 1868 was able to collect eight recorded cases of gummata of the heart. Since then from time to time post-mortem specimens of the affection have been exhibited at the Pathological Society of London and elsewhere. The table given above shows abstracts of the history, where such was obtainable, and of the lesions found in twenty-five cases. In all these cases the pathological changes consisted in a deposit in the muscle of the heart of a substance which in the early stage was soft and yellow in colour and occurred either as nodules, varying in size from that of a pin's head to that of a large marble, or as a more or less widespread infiltration; the substance destroyed and replaced the cardiac muscle so that eventually not a trace of muscular fibre could be detected; it sometimes projected the endocardium lying over it within the heart or the visceral layer of pericardium on the outside of the heart. The infiltration in many cases resulted in a great thickening of the heart wall, producing a false hypertrophy; in other cases it so weakened the heart wall that it yielded to the intra-cardiac pressure and dilatation resulted, the heart wall in extreme cases being greatly attenuated; occasionally there was produced a *local* extrusion of the thinned cardiac wall, giving a cardiac aneurysm. In some of the cases of cardiac syphilis the infiltration became white in appearance and tough in texture, creaking on section, and where widely deposited it caused the heart wall to become stiff and to gape on section. In one recorded case a gummatous nodule softened and discharged itself into the heart's cavity, but such an occurrence is quite exceptional. The deposit, whether nodular or diffuse, occurred in the septum of the heart or in one or both of the ventricles. The cases recorded are not numerous enough to base an estimate upon of any value as to the relative frequency of the affection on the two sides of the heart. Any part of the ventricle wall may be affected; the base, it would appear, rather the most often. In some cases the deposit was close to the heart's apex, as in the case at the head of this paper. The infiltration frequently extended into the columnæ carneæ, softening them or causing their rigidity or contraction, and in one case leading to union of adjacent musculi papillares. The pericardium was occasionally the seat of gummatous nodules, and local pericarditis arose occasionally over these nodules.

The microscopic changes in all these cases were similar to those found in syphilitic fibroid and gummatous changes in other parts of the body. It will have been seen, too, that syphilis produces the same gross changes in the heart as it does in other internal viscera, for example, the testis—viz., a general fibroid infiltration or gummata or both together. In the heart the essential change which syphilis produces is a replacement of the muscular tissue by a round-celled fibroid tissue which, whether it occur as nodules only or as a more widespread change, leads to dilatation or hypertrophy or merely rigidity of the heart wall, and has this uniform result, that it impairs or interferes with the heart's contraction. Now diffuse fibroid change in the heart wall occurs no doubt from other causes than from syphilis, and, as was pointed out by Fagge,[4] it is not possible to tell by examination after death whether the changes are or are not of syphilitic origin, except in those cases where there are actually gummata. But in the cases I have included in the table as the basis of this paper there was in every one a distinct history of syphilitic infection, or there were syphilitic changes in other organs than the heart, or there were actual gummata in the heart wall. These cases, therefore, may be taken as undoubted examples of syphilitic heart disease.

SYMPTOMATOLOGY.

Most of the cases have been recorded to illustrate the pathological conditions produced in fatal cases and comparatively little attention has been directed to the nature of the symptoms produced by syphilitic disease of the heart wall during life; but Ricord, Lancereaux, Mannino, Buchwald, Semmola, and others have written upon the clinical aspects. Lancereaux writes: "Syphilis of the heart is recognisable by a grouping of symptoms, which are palpitation, dyspnœa, and then, as little by little the heart dilates, a systolic bruit develops and later anasarca." Buchwald[5] describes the symptoms as "headache, dizziness, flashes of light, loss of strength, palpitation, dyspnœa, feverishness, sore-throat, and in some cases symptoms of angina pectoris and neuralgic pains like aneurysm; the cases in which the heart insufficiency can no longer be influenced favourably quickly run downhill, developing marked anæmia

[1] Gazette des Hôpitaux, 1845, No. 101.
[2] La Syphilis Constitutionelle, p. 108.
[3] Visceral Syphilis, 1868.
[4] Transactions of the Pathological Society, vol. xxi.
[5] Deutsche Medicinische Wochenschrift, Dec. 26th, 1889.

and consecutive kidney disease and sometimes pulmonary hæmoptysis. The majority of cases show a great and rapid improvement under anti-syphilitic treatment." Semmola[6] writes: "Syphilis is one of the most troublesome and ill-defined pathogenic diseases of the heart, commencing not with direct functional disturbance, but with vague nervous diffuse phenomena without certain features of recognition; neither percussion nor auscultation will assist the investigator in the incipient stages of the disease; the morbid process is slow in progress, exhibiting manifestations of a change in the ventricular structure without evidence of dilatation or hypertrophy; the absence of the latter makes the clinical picture of the morbid changes difficult to reconcile with the more commonly met with cardiac diseases." These descriptions, though agreeing to some extent with one another, make no distinction between the widely varying conditions producible by syphilitic disease of the heart. There may be only a gumma, or a widespread general infiltration, or extensive dilatation or hypertrophy, or a cardiac aneurysm on either or both sides of the heart, and it is obvious, therefore, that no one description of symptoms can be given which will be applicable to all cases.

In this paper I propose to inquire whether the symptoms of syphilitic disease of the heart wall are sufficiently distinctive to enable us to make an approach to a correct diagnosis of the condition during the lifetime of the patient.

Symptoms produced by gummata of the left ventricle.—In Case 15 in the table, in which death occurred from the effects of an accident, and in Case 17, where it resulted from an aortic aneurysm, numerous small gummata were found post mortem in the heart wall, and in the Museum of the Royal College of Surgeons of England is a very beautiful specimen (No. 2959) of a heart with gummata the size of a pea in its wall; the patient from whom it was taken had been under observation for a considerable period for symptoms of cerebral syphilis, from which he died. In none of these cases had there been any symptoms of heart disease during life, and in none of them did death occur from the heart affection. It is evident, therefore, that very small gummata may exist in the heart wall without giving any recognisable evidence of their presence. So long, however, as they remain so small in size or so situated as to produce no symptoms they do not appear to be dangerous to life or of immediate importance. But the importance of gummata of larger size in the left ventricle is very great, for they may cause sudden death in the prime of life in otherwise healthy persons, as shown by the case at the head of this paper; by Case 24, where a man dropped dead after singing a song, having been to all appearances in perfect health until that moment; and by Case 25, of a man aged forty-five years, who, when walking in the street carrying his little boy, suddenly fell down and expired.

In all these cases there was a gumma in the left ventricle, and it is noteworthy that necropsies show that it is only when the gumma is in the *left* ventricle that it is liable to produce such sudden death and also only when it is situated near the apex of the ventricle: this, indeed, is what might be expected from what is known of the action of the muscular fibres of the ventricles during systole. Now, although persons may thus die suddenly from cardiac gummata in the midst of apparent health, it must not be concluded they had previously suffered from no symptoms or signs of heart disease. In such cases it is often impossible to obtain the patient's previous history or to ascertain if he had suffered from any symptoms, and most of the recorded cases were exhibited as pathological specimens with little reference to the previous condition of the patient. It is, therefore, not justifiable to infer that these patients had suffered from no symptoms indicating heart disease because no evidence of such is forthcoming. The case at the head of this paper, for instance, might have been regarded as one of sudden death without any previous cardiac symptoms had it not been that information was subsequently obtained that the patient had a few days before, when away from home, been seized with sudden intense pain, regarded at the time as of gastric origin, but which the after evidence leaves no doubt was a very acute attack of angina pectoris. And in all the cases recorded of sudden death from a cardiac gumma in which the previous condition of the patient has been ascertainable there have been symptoms, slight it may be often intermitting, often wrongly interpreted, but which might, if our knowledge of the subject was more accurate, have given rise at any rate to a strong suspicion of cardiac syphilis. It is, therefore, of importance to inquire further what are the exact indications which a cardiac gumma may produce.

The fatal cases of cardiac gummata in the table do not lend much assistance, the patients having died under circumstances which prevented the previous history being accurately ascertained. But in Case 21 the patient had been under careful observation for a long time and there had been nothing more than an attack of angina pectoris, palpitation, and occasional discomfort about the heart, with such slight physical signs of abnormality that it was thought heart disease might be excluded. From this case and from the evidence of other recorded cases in which the symptoms cleared up under anti-syphilitic treatment, and in which it was presumable that gummata existed, the symptoms producible appear to be one or more of the following: palpitation; subjective sensations about the precordium; attacks of angina pectoris; giddiness, faintness, or actual syncopal attacks; epileptiform seizures; and alterations in the force and frequency of the pulse, especially its great rapidity, and in some cases irregularity of the heart's action. The symptoms may be variously associated; there may be only angina, or palpitation and angina, or tachycardia, or palpitation and syncopal attacks, or they may be grouped in other ways. With these symptoms there are no evidences that the heart is enlarged, but there are usually some physical signs of cardiac action being embarrassed—the heart's impulse may be feeble and the first sound weakened, but more often the action is irregular and excited and the impulse abrupt, with a loud first sound; and it is quite possible that a gumma, which is virtually a foreign body in the heart substance, may impede the free action of the muscular fibres immediately around it and give rise to over-action of the healthy fibres of other parts of the ventricle.

None of the symptoms which have been enumerated are pathognomonic of cardiac gummata, but there are two of them—viz., angina pectoris and tachycardia—which merit special attention in this connexion.

Angina pectoris.—Angina pectoris is usually associated with physical signs or symptoms of heart or valvular disease that can leave no doubt that the angina is dependent on the heart condition; but, as many of the cases in the table show, a gumma of the heart wall may produce angina pectoris with scarcely any other symptoms or signs of heart disease. Thus, in Case 8 what was subsequently verified as true angina pectoris was for a whole year the sole symptom of an eventually fatal syphilitic heart lesion, and in Case 21, except for some occasional palpitation, an attack of severe angina pectoris was the sole symptom of a cardiac gumma which killed the patient eighteen days later. When anginal pain occurs then, even though there be no confirmatory signs of heart disease, we should remember that it may be the indication of a gumma in the heart.

There are some other conditions which will produce anginal pain with a similar minimum of confirmatory symptoms of heart disease—viz., fatty degeneration of the heart and, as Sir William Broadbent has pointed out, aneurysm at the very root of the aorta within the pericardial sac; also aneurysm of the cardiac wall, of which an example will be given later. The cases in which angina is due to fatty disease can be distinguished from those in which it is due to a gumma, by the fact that fatty disease occurs for the most part after five years of age and syphilitic heart lesions for the most part much earlier in life. Fatty heart is also usually associated with other clinical evidences of its presence, and in syphilitic gummata there will be evidences, or history, of previous infection. The other condition from which cardiac gumma may have to be distinguished is aneurysm at the root of the aorta. Sir William Broadbent[7] points out that "it is not always possible to distinguish between anginoid pain due to aneurysm in this situation and true angina; in the cases of aneurysm the sense of impending death is not so marked a feature of the attacks, and the pain often radiates down the arms instead of along the left only, occasionally it shoots down the right arm only. In angina there may be no physical signs of disease of the great vessels; in aneurysm there will be the the ringing second sound and very frequently a diastolic murmur."

Angina pectoris, then, must not be discarded as a symptom

[6] Bull. della R. Academia de Medecine, vol. xxv. ii., p. 185.

[7] St. Mary's Hospital Gazette, vol. i., No. I., 1895, p. 5.

of heart disease because it is unaccompanied by any other evidences of heart disease; and where fatty degeneration of the heart and aneurysm of the root of the aorta can be excluded it affords a presumption of gumma or aneurysm of the heart, and when on investigation any syphilitic antecedents are discovered in the patient the presumption becomes a strong probability.

I need not enter into the differential diagnosis between gumma and aneurysm of the heart wall, as they are, in fact, stages of the same affection.

Tachycardia, according to Semmola,[8] is another symptom which sometimes denotes a cardiac gumma, and "it may be," he writes, "the earliest sign of syphilitic disease of the heart wall." He also adds: "The rapid action is constant and not paroxysmal as a mere neurosis; this is important to recognise, because it is at this period that anti-syphilitic treatment is of most avail." A case recorded by the late Dr. Bristowe[9] appears to support the observation. A man, aged thirty-eight years, after contracting syphilis, began to suffer from tachycardia, with epigastric pain, but without physical signs of heart disease. He was little relieved by digitalis or iron, and later developed dyspnœa, anasarca, and dilatation of the heart and died in about a year. No necropsy was made, and the connexion between syphilis and the symptoms does not appear to have been entertained, but the course of the case so exactly resembles that of many of the cases in the table of verified syphilitic heart disease that it appears highly probable that Dr. Bristowe's case was one of syphilitic myocardial change of which the tachycardia was one of the earliest symptoms. I have no case in which tachycardia was verified by post-mortem examination to have been due to gumma; but in a case which I shall describe later, and in which the post mortem examination showed general fibroid change in the heart wall, tachycardia was one of the earliest symptoms and probably, therefore was produced when the fibroid change was quite localised. This case, however, does not bear out Semmola's dictum that in such cases the tachycardia is constant and not paroxysmal.

It is evident that where tachycardia is an early symptom of fibroid heart change it must be very difficult, or even impossible to distinguish such a case from a mere functional tachycardia, but it is highly probable that many cases of so-called functional tachycardia are really due to some organic lesion, such as a gumma in the heart, and so also are some of those cases described in young soldiers as "irritable heart."

Gummata of the right ventricle.—The post-mortem examinations of the cases in the table show that gummata may occur in the right ventricle as well as in the left. So far as I can ascertain there is no recorded case of death, either sudden or gradual, from a gumma in the right ventricle; it is, therefore, not possible to say, from post mortem evidence, what symptoms a gumma in the right ventricle may produce. Though not so immediately dangerous to life as gummata of the left ventricle, they are, however, by no means unimportant, for they may interfere with effective action of the right heart, and they tend in time to become aneurysmal and to rupture, or they may become associated with more widespread fibroid disease.

In all the cases in which extensive fibroid disease has been found in the right ventricle *dyspnœa* has been one of the earliest and most constant symptoms; it is, therefore, probably producible when there is only a gumma or fibroid change of limited extent on the right side of the heart. When dyspnœa occurs without lung disease or left-sided heart disease or other obvious cause, such as anæmia, it is well, therefore, to remember its possible dependence on some fibroid change in the wall of the right ventricle, and this becomes all the more probable if on enquiry we find a history, or signs of, previous syphilis. Angina pectoris, too, may no doubt result from such disease in the right, as it may in the left, ventricle.

The following appear to have been instances of cardiac gummata:—

CASE A. *Severe angina without physical signs of cardiac disease; recovery after anti-syphilitic treatment.*—A married man, aged thirty years, came to the out-patient department at St. Mary's Hospital on Aug 12th, 1887. He had contracted a chancre, followed by a syphilitic eruption, twelve years before. Except for an attack of typhoid fever in 1884 his health had been good, but in 1877, or two years after his primary infection, he began to suffer from pains in the cardiac region; he got better, but for the four years previously to 1887, when I first saw him, he had been subject to attacks of angina which were very severe and in March, 1887, became still more intense. When I first saw him he was very tremulous, having had an attack the same morning; his pulse was 100 per minute, regular, and of good force. He described the attacks as "horrible sensations" felt in the cardiac region and along the course of the left ulnar nerve; during the attack he was afraid to draw breath. The attacks lasted for one or two minutes, but sometimes recurred in a minute or two; when over there was profuse sweating. He said that when the attacks had passed he was not short of breath and could get about very well, but palpitation came on if he walked fast or ran upstairs. The position of the heart's apex was very difficult to exactly localise; it appeared to be in the fifth space, half an inch below and quite one inch inside the nipple and was very feeble, while there was a curious throbbing over the right ventricle, and, indeed, over the whole chest; there was no bruit anywhere except at the right apex and at the base of the heart, where the first sound was covered by a thin, hollow, soft bruit, possibly hæmic, being also heard under the left clavicle; the second sound at the right base was short and clicking; the heart's action was very abrupt and forcible, but the pulse was weak, regular, and 100 per minute and the carotids were throbbing. He had been under treatment in America, in this country, and in Scotland. He showed me a large bundle of prescriptions he had tried, mainly of digitalis, which had at times given him temporary relief. Nitrite of amyl he had repeatedly tried but with no benefit. Of late his angina had been unrelieved by digitalis and he was obliged to give up work, his attacks getting more frequent; he had had four in the last fortnight. I ordered him six grains of iodide of potassium with one-sixteenth of a grain of bichloride of mercury three times daily. He had no attack of angina after this until Sept. 15th or thirty-four days. In this attack the pain was in the chest and down the left arm, but not far down; the attack was slight—in fact, "not worth speaking of"; the palpitation, he said, was much better; he had not been in the same flurried and faint condition as before; and the pulse was 76 per minute, full and soft. The apex of the heart was now one inch below the nipple and one inch inside its line. The impulse was feeble and the jarring tremor over the right ventricle much less; over the left ventricle was heard a weak rather prolonged first sound and a clear second sound with a good interval between them. Over the right ventricle the first sound was louder than before and without bruit and there was re-duplication of the second sound. The first sound was hardly audible at the right base. The heart sounds were not hurried as before and the carotids did not throb so demonstratively. He continued to take the medicine till Sept. 9th and greatly improved. On Sept. 17th, or eight days after he left it off, he "came over very bad, being frightened to draw breath," and the pain went down the arm. His pulse was 96 and there was a soft post-systolic bruit. His medicine was resumed but of increased strength; he again greatly improved. On Oct. 13th the apex was one inch inside his nipple, there was no bruit, and his heart appeared healthy, except that the first sound was weak; the pulse was 72, and he could get about well and take exercise freely. On Feb. 18th, 1888, I saw him again, when he was quite well. I have not heard of him since.

CASE B.—I might add another case in which a policeman suffered so severely from angina that he fell down while on duty. There was no bruit or ascertainable evidence of heart disease; his anginal attacks were of intense severity and occurred once or twice while he was at the hospital, on one occasion so severe that I had to take him indoors. Nothing but hypodermics of morphia relieved him. He had to leave the police force, as I found afterwards meeting him by chance in the street. It then occurred to me to put him on iodide and mercury and his angina soon became very much less.

CASE C.—In another case a gentleman, who suffered from anginal pain so severe as to prevent any exertion came under my care. He had been treated without effect by several practitioners, and as I also failed to relieve him he saw a well-known physician in consultation with me, but he did not improve. Digitalis, strychnia, and all treatment failed to relieve him, till one day he mentioned to me that he had had

[8] Bulletin de l'Académie de Médecine, vol. xxviii., p. 126.
[9] Brain, October, 1887.

syphilis. Iodide of potassium entirely cured him and he is now in perfect health.

CASE D.—A man, aged thirty-two years, came to the out-patient department at St. Mary's Hospital on Nov. 6th, 1890, complaining of pain in the cardiac region of some months' duration, worst in the early morning. There was a sudden vibratory cardiac impulse, with a drum-like, very abrupt first sound. His pulse was 72 per minute. He said directly he went to work he got palpitation and pain in the heart region. He had a sharply-cut syphilitic ulcer on the side of the tongue and had had a chancre some years previously. I ordered him mercury and potassic iodide, and on Nov. 13th the impulse was less vibratory, the pain and palpitation gradually lessened under the treatment, and he came to see me in reply to a letter of mine on March 4th, 1891; he was then able to work well and suffered no pain. The first sound was duplicated and the pulse 84 per minute.

CASE E.—A man, aged sixty-one years, came to me at St. Mary's Hospital as an out-patient on Nov. 19th, 1894, complaining of giddiness for three weeks, of sleeplessness, headache for fourteen days (very severe at night), and palpitation. The pulse was 138, small and running. The heart's apex was just inside the nipple line in the fifth space; there was a very rapid succession of first and second sounds and now and then a beat was dropped; the arteries were degenerate. The patient was very weak and anæmic and depressed. There was no albumin in the urine, the specific gravity of which was 1010. I ascertained he had had syphilis many years before and he had, indeed, some scarring of an eruption on the back. He took iodide of potassium and bichloride of mercury, and on Nov. 26th the giddiness had become less and he slept better. The headache also was less. His pulse was 160, very short, and with a slight tapping impulse. The heart sounds were regular. He felt much better and wished to resume work, but I advised against this. By Dec. 10th his pulse was 128 and tense; his first heart sound was loud and clear; he felt much better and went to work; and on the 31st the pulse was 104. He looked a different man; he ate and slept well, although there was occasional giddiness when he looked upwards and then suddenly downwards.

Diffuse syphilitic fibrosis of the heart.—Cases of *general* fibroid infiltration of the heart may be divided into two classes—those in which the weakened muscular tissue yields to the intra-cardiac pressure and dilatation results, and cases in which the heart wall becomes toughened, stiffened, and thinned, with much loss of power, but without dilatation.

Syphilitic fibrosis leading to dilatation of the heart.—When the *Left Ventricle* becomes thus dilated the evidences are the same as those of dilatation from other conditions—viz., subjective sensations about the cardiac region, even angina pectoris, giddiness, faintness, or actual syncopal attacks, with alterations in the force or frequency of the pulse, together with the physical signs of dilatation of the ventricle; the symptoms often are more marked than might be expected from the amount of dilatation present, probably because the fibroid change resists the dilatation to some extent, though itself greatly enfeebling the heart power: in these cases death may occur quite suddenly or only after dilatation of the right ventricle, back-working, and all the symptoms of tricuspid regurgitation have been produced; in some cases these right heart symptoms are due to independent involvement of the right ventricle by the fibroid changes. The table contains cases illustrating the effects of dilatation of the left ventricle from syphilitic changes. In Case 3 death occurred after some months of well-marked symptoms of heart failure, and the left ventricle was found post mortem to be extensively dilated and hypertrophied, and in Case 12, where a woman dropped suddenly dead in the street, the left ventricle was found dilated and hypertrophied. When the *Right Ventricle* becomes dilated as a result of fibroid change the cases in the table show that suffocative attacks of dyspnœa, ascites, albuminuria with the physical signs and other evidences of tricuspid regurgitation occur, and death eventually takes place, but sudden death in the midst of apparent health does not result from fibroid disease of the right side of the heart. It must be, of course, remembered that where the left ventricle is affected by fibroid disease the right heart dilatation may be only a secondary result of this. Case 4 in the table illustrates the symptoms produced and the fatal results of syphilitic disease of the right ventricle with tricuspid regurgitation. The following cases are examples of dilatation of the heart, probably syphilitic, which improved under treatment.

CASE F.—*Dilatation of the left ventricle and syncopal attacks.*—A man, aged thirty years, was seen with Dr. S. de Butts on Oct. 12th, 1892; he was married and had three healthy children. He suffered in 1883 from a chancre and secondary syphilis. In 1891 he began to experience a dull pain in the lower sternal region with a feeling of constriction of the chest and palpitation; and one evening he had semi-syncopal attacks and had to lie down. He had to remain at home a fortnight. A month or six weeks before I saw him in October, 1892, after feeling much the same sensations as before, he had another semi-syncopal attack and was very breathless; he was just able to get into a cab and go home. No albumin was found in the urine either then or during the previous attack of illness. When I saw him the pulse was 84 per minute and the heart's apex in the sixth space, one inch outside the nipple line. The beat and first sound of the heart were very weak; the aortic sound was clear; the first sound was occasionally duplicated; there was no bruit; the heart was certainly dilated, and as he had not benefited by digitalis or strychnia, was in good general health, but had suffered from syphilis, the diagnosis of possible syphilitic change in the left ventricle was arrived at and he was ordered mercury and iodide of potassium; the signs of dilation rapidly closed up. Dr. de Butts tells me he has been well since then, except that once or twice the symptoms have recurred. Each time he has resorted to the same treatment and soon got well. About August, 1896, he had a sort of anginal attack, which he treated in the same way.

The following case is recorded by Lancereaux in his "Treatise on Syphilis," p. 393:—

CASE G.—A woman, aged thirty-seven years, entered the Hôtel Dieu for exostoses on the tibiæ. She had contracted syphilis six years before and it was evident it was to this disease that the exostoses were attributable; but she was, moreover, pale, emaciated, and her liver projected three fingers' breadth below the ribs. She had shortness of breath, a feeling of oppression in the precordial region, and violent palpitations. Percussion showed that the heart was enlarged and auscultation revealed a slight blowing sound; the movements of the organ were irregular and the pulse feeble and compressible. Not seeing anything to explain the derangements of the heart and liver he suspected that the lesions of those organs might be connected with syphilis and this opinion was afterwards confirmed by the effect of treatment with iodide of potassium.

CASE H.—In a second case recorded by the same author the patient, a young man, admitted to the Hôtel Dieu suffered from greatly enlarged liver, œdema of the extremities, and irregular movements of the heart, which did not appear enlarged, and without any abnormal sounds. For several months he had suffered from oppression on the chest. Despite the absence of any avowed antecedent syphilis he was put on iodide of potassium, and the oppression disappeared, the heart regained its regularity, and the liver diminished in size so as no longer to project by more than one or two fingers' breadths below the margin of the ribs. The cachexia was at the same time replaced by a certain degree of stoutness.

CASE I.—A labourer, aged forty-three years, was admitted to St. Mary's Hospital on June 3rd, 1896. He had been a soldier for twelve years. He had had good health except for venereal disease, for which he was in hospital. About six weeks previously he first had attacks of shortness of breath, especially at night, obliging him to be propped up in bed or to get up and walk about the room. He has been unable to walk more than fifty yards at a time and had to give up work. Not improving under treatment as an out-patient he came into the hospital on June 3rd; his pulse was 90, irregular, both in force and frequency; the apex beat was in the sixth space half an inch external to the middle line, feeble, fluttering, and diffuse, and there was slight epigastric pulsation. There was a blowing, short, systolic murmur. The other heart sounds were clear, the liver was much enlarged; the dyspnœa was considerable, though nothing abnormal was found in the lungs. With complete rest in bed and digitalis and strychnia he improved to some extent, the liver lessening in size, and he felt quite well in himself, but he was unable to walk even about the ward and the heart was most irregular in action. On July 2nd, after he had been up, the heart was beating faster than it had been. Epigastric pulsation was very marked; the cardiac dulness was increased, and frequently the beats did not reach the wrist. On July 7th

I found that at the apex there was a bruit with some beats, but not with all, that the action of the heart was extremely irregular and the breathing very embarrassed by the slightest exertion, and it was more irregular than ever. As no treatment had given much benefit he was ordered mercury and potassic iodide; he began to improve, and by July 21st said he was better than he had been for years. The apex was in the vertical nipple line; the heart above was more regular, though still at times there was an irregularity and systolic murmur, and the pulse was more forcible, but by no means regular. The heart condition was a long way off being normal, but he was so well that he would return to work, and he was able to do the heavy work of a crane driver till about Sept. 17th, when he began again to have dyspnœa, but managed his work without much difficulty. On Sept. 23rd he came to see me; his pulse was 108, very irregular in force and frequency; the first sound had a systolic murmur with it at some beats, but not at others, and the action was irregular. I persuaded him to come in again and by Oct. 4th he was very much better, and his pulse was 92 under specific treatment and rest. This case was one of very marked cardiac degeneration of some sort giving dilatation and much dyspnœa; both sides of the heart were certainly dilated. He got much better in a very short time by specific treatment after resisting other methods.

Diffuse fibroid heart-change without dilatation (a) *in the left ventricle.*—In this condition, exemplified by some of the fatal cases in the table, a gradual and progressive loss of power ensues; where the change is limited in extent little is to be found except that the heart's impulse and first sound are weak and there may be some symptoms of cardiac weakness. In advanced cases the action of the heart may get extraordinarily weak, the apex beat becoming imperceptible and the first sound almost or quite inaudible; the pulse is very feeble, irregular, or very rapid or very slow, or alternating between these two conditions; there is a tendency to giddiness, faintness, and syncopal attacks may occur. At times the cardiac symptoms may become overshadowed by those of extreme debility, with inability for any exertion and great loss of energy, sometimes so marked that the patients have to keep their beds; there may be œdema of the feet and there is marked anæmia. Such cases are gradual in development and may go on in this condition for a long time with exacerbations and improvements; they are often put down as fatty heart or as "weak heart," and weak heart they undoubtedly are, but the weakness is due to organic change. These cases unless relieved by treatment die suddenly or from gradual asthenia. Several cases in the table exemplify the fatal results of syphilitic infiltration of the left ventricle without dilatation. Thus in Case 9 in the table "a correct diagnosis was made of a specific cardiac lesion from the peculiar feeble contraction of the heart and the empty arteries, the left ventricle and septum being found post mortem to be the seat of extensive fibroid infiltration creaking on section"; and in Case 19 in the table a man aged forty-five years died suddenly from extensive syphilitic infiltration of the wall of the left ventricle completely destroying the muscular tissue. Case 20 in the table is very similar. When the *right* ventricle becomes fibrotic without becoming dilated the main symptom would appear to be dyspnœa, as in cases where there is dilatation. Probably such disease of the right ventricle alone is not likely to be fatal, but if it involves the septum it may be, as in Case 7 where a man after walking across some fields fell dead in a public house, the necropsy showing extensive fibroid change limited to the right ventricle, septum, and musculi pectinati.

The following appears to be an example of fibroid disease of the heart without dilatation resulting from syphilis.

CASE J.—A man, aged thirty years, came to me at St. Mary's Hospital on Oct. 30th, 1885, complaining of precordial pain of five or six months' duration, with palpitation, dyspnœa (especially after exertion), giddiness, faintness, languor, and aching pains in the knees and shoulders, worst at night; he also had sweats at night. The pulse was 84, of rather high tension; the arteries of the neck throbbed. The apex of the heart was in the fifth interspace, a little inside the nipple line. There was a re-duplicated first sound, which was very weak over the left ventricle, but no bruit. He was treated with digitalis, with strychnia, with both combined, with tonics, and with ergot successively. He got worse rather than better; he could not sleep; his pulse varied from 104 to 112 per minute and was always feeble; he got very haggard-looking and could not resume work though he refused to become an in-patient. In January, 1886, I discovered that a child under my care at Paddington green Children's Hospital for congenital syphilis was his child. On inquiry from him I found that ten years before he had had a chancre. On Jan. 14th I ordered him iodide of potassium and mercury. On the 21st he was "better than he had been all along." The pulse was 100. On Feb. 2nd his heart sounds were much louder and clearer and his symptoms gone. He soon went again to his employment and I wrote to him on Dec. 16th, 1886, and heard from him that he was quite well and living in the country.

The two following fatal cases also exemplify the results of fibroid change in the heart without dilatation. They have not been included in the table, for their nature not being suspected during life enquiry was not made into syphilitic antecedents. From evidence afterwards obtained I believe they were syphilitic. Fagge has shown that fibroid disease from syphilis cannot be distinguished from fibroid disease from other causes even on the post-mortem table, except where there are actual gummata in addition. The symptoms, then, of syphilitic fibrosis are in all probability identical with those of non-syphilitic fibrosis of the heart, and even if these two cases are not of demonstratively proved syphilitic causation they were certainly cases of fibroid disease such as syphilis produces and may be taken as exemplifying the symptoms syphilitic fibrosis may produce.

CASE K.—This patient, a married woman, aged forty-eight years, soon after a confinement in 1877 commenced to feel weakness and languor. She came to me in 1884 as an out-patient and on Sept. 3rd, 1884, I took her into the hospital. She complained of pains in the head and attacks of giddiness, during which she had often fallen but without loss of consciousness. She was very short of breath on going up steps and her voice was very weak. There was no dyspnœa when lying down. There was no albuminuria and no impulse of the heart was perceptible and no "first sound" was audible. The pulse was 64 per minute, very weak. She remained in the hospital till Oct. 8th, during which time the first sound of the heart could at times be faintly heard. She preferred to lie in bed always and showed a peculiar languor and want of energy. She occasionally fainted. She was very anæmic and as it was thought she might be suffering from pernicious anæmia the red corpuscles were counted and were found to be about 70 per cent of the normal. She was given arsenic, iron, ergot, digitalis, &c., with little result except that her gums got rather spongy when the arsenic was pushed. Dr. Broadbent kindly saw her with me and agreed that she was suffering from extreme cardiac debility. There was never any rise of temperature and the pulse varied from 60 to 76 a minute. At times she improved and during such temporary improvement went home on Oct. 8th. I went to see her at home at times after this, being interested in the case, and I was informed, in October, 1885, that she had died suddenly in Kensington Infirmary. I made a post-mortem examination when all the organs were found to be healthy except that the heart was tough and fibrous and the musculi papillares quite rigid and the edges of the mitral cusps were soldered together.

CASE L.—A woman, aged thirty-eight years, who had been married twenty years, came to me at St. Mary's Hospital as an out-patient in February, 1890. She said that she had for a long time suffered from palpitation and faintness. She had had ten children, of whom five had died in infancy. Since the last confinement, in September, 1889, the palpitation had been worse. There was epigastric pain and once she had fallen to the ground in a faint. Her heart action was very feeble and rapid, and as treatment by digitalis and tonics failed to relieve her I sent her into the hospital on April 15th, 1890. She continued to suffer from palpitation, occasional vomiting, and extreme languor; the pulse was extremely feeble, beating often 160 a minute, at other times too fast to be counted; at times the pulse would suddenly become very slow, sinking to 40 a minute, but the heart was then found to be beating 80 a minute, the apex beat was very feeble, but was inside the nipple line, and the heart did not appear to be enlarged; there were no murmurs. Strophanthus appeared at times to relieve her. On June 17th, being a little better, she went to a convalescent home. She returned as an out-patient on July 4th as bad as ever, with swelled feet, slight œdema of the face, marked sallowness of complexion, and a pulse rate of 180. I sent her in-doors again. She then kept her bed, but

frequently fainted when she sat up and often became cold and clammy. On one attack on July 18th she was with difficulty revived by stimulants and ether; her face at times flushed up, but she was usually pale; the left leg at times swelled a little; the first heart sound was always very feeble and the second sound often dropped; the action was frequently irregular; usually there was a series of rapid beats with intermission; no diagnosis was made except of cardiac weakness, and digitalis, strophanthus, arsenic, convallaria majalis, and iron were tried without avail. When the hospital was closed for cleaning she was admitted into the Middlesex Hospital, where her husband was a patient with tabes dorsalis. While there a slight systolic murmur was heard and it was noted that digitalis did no good. After being eleven days in the hospital she died in September quite suddenly and unexpectedly when she was thought to be convalescing. At the necropsy there was found a general fibrous myocardial change and œdema of the lungs. For this account of her stay in the Middlesex Hospital I am indebted to the kindness of Dr. Wynter, assistant physician at that hospital.

These two cases illustrate very well the very gradual failure of heart power produced by fibroid heart disease and the languor and weakness to which such patients are reduced, together with the complete failure of cardiac tonics to give relief. During life others besides myself saw the patients and agreed that the one thing that was certain was that there was a condition of extreme cardiac weakness unlike that of fatty disease, and of which the causation was not explainable.

Cases in which there is hypertrophy of the heart.—It will be seen that in several of the fatal cases in the table there was found post mortem considerable hypertrophy of one of the ventricles. In such cases the increased bulk of the heart is produced by fibroid tissue and not by increase of muscular fibre. The diagnosis of such cases rests on the evidences of hypertrophy of the heart without evident cause; where there is no valve disease or albuminuria, and nothing to indicate that the hypertrophy has been set up by great muscular exertion, and where pericardial adhesions are not present, it should be remembered that hypertrophy may result from interstitial fibroses, and this becomes especially probable where the increased bulk of the heart as estimated by the physical signs is not accompanied by evidences of proportionate increase of power. Where the heart-beat is very powerful and the arteries not well filled there is a presumption that the hypertrophy is not a true hypertrophy, and it should be remembered syphilis is a cause of such spurious hypertrophy of the heart. Such cases may terminate fatally quite suddenly, as in Case 5 and Case 16 in the table there was enormous hypertrophy of the left ventricle and an aneurysm near the apex.

CASE M.—A woman, aged fifty-three years, came as an out-patient to St. Mary's Hospital on Oct. 18th, 1886, complaining of palpitation waking her at night, headache, and faint attacks. The pulse was 100 and irregular. The first and second sounds were re-duplicated; the first sound was a little rough, but there was no actual bruit; there was a very forcible heaving impulse over a large area, and the apex itself appeared to be just outside the nipple line. The second sound was loud and clanging. She improved somewhat for a time with digitalis and iron, but at times fainted, and the palpitation continued. In December I noticed a red scar on the chin, and on inquiry found that it resulted from a specific ulceration for which she had attended my colleague, Mr. M. Morris. Her heart symptoms were very soon relieved by mercurial and iodide treatment. Since then they have recurred from time to time and she has frequently come back to me at the hospital and always been relieved by anti-syphilitic treatment. The apex of the heart is in the same position and the impulse forcible, but the symptoms are relieved.

Cardiac aneurysms from syphilitic disease.—The cases in the table showed that in many of the fatal cases aneurysm of the heart-wall had resulted from the syphilitic changes; in some cases death had resulted from rupture of such aneurysms, in others death had occurred from other syphilitic heart lesions. Probably most cardiac aneurysms, when not traumatic, result from syphilitic disease of the heart wall and early recognition of the presence and nature of fibroid cardiac lesions would prevent their formation. In this paper I shall not dwell at more length on these cardiac aneurysms, but the following case, the notes of which have been kindly given me by a military surgeon, is of interest as showing how angina pectoris may be almost the sole evidence of an aneurysm of the heart wall, in this resembling a cardiac gumma (of which it is the later stage) and aneurysm of the aorta at the sinus of Valsalva.

CASE N.—A man, aged twenty-five years, a soldier of seven years' service, was under treatment in 1889 and 1890 for syphilis in a military hospital for 185 days; after that his health was good. He was admitted on Nov. 4th, 1893, into the Station Hospital, Gosport, for indefinite pains in the chest, principally on the right side, whence they extended down the arm. The temperature was normal; there were no physical signs of disease of the respiratory or circulatory organs. On Nov. 5th a severe paroxysm of pain occurred; again on the 6th at 3.30 A.M., and at 8.10 A.M., with vomiting; the extremities became cold, the face pallid, and the pulse imperceptible, and he died in ten minutes. The necropsy showed a small opening concealed by one of the aortic cusps leading into an unruptured aneurysmal sac at the base of the aorta; the wall of the aneurysm was composed of the heart muscle forming a cardiac aneurysm.

DIAGNOSIS.

Of very small gummata in the heart wall, which give no symptoms, the diagnosis is not possible, but they are not of serious importance. Larger gummata in the left ventricle gave rise to physical signs and symptoms. The physical signs are an enfeeblement of the apex beat and the first cardiac sound, or in some cases where the gumma is near the apex evidences of interference with the heart's action, such as abrupt, rapid, apex beat and noisy, short first sound; often the cardiac action is extremely irregular or altered in rhythm. The symptoms are one or more of the following: subjective sensations about the heart, palpitation, giddiness, attacks of faintness or actual syncope, epileptiform attacks, a very rapid or irregular (or perhaps a very slow) pulse, and, above all, anginal seizures. It must be admitted that no one of these physical signs or symptoms—angina excepted—necessarily implies the existence of cardiac disease. Syphilis has been called the "great imitator," and here it imitates gastric or reflex or functional unimportant ailments; and the difficulty in these cases is not so much to decide what form of cardiac disease is present as to decide if there is any heart disease at all. It is not always possible to overcome this difficulty, though it usually is, but I wish to insist on this important fact, that *evidences which we might sometimes set aside as too slight to denote important cardiac disease must not be so set aside in syphilitic persons.* Certainly angina pectoris, with the slight physical signs enumerated above, must be taken as affording strong probability of a gumma in the heart in syphilitic persons, even without another symptom. Of the other symptoms named no one individually is pathognomonic of organic heart disease, but if there be more than one of them—e.g., syncope and palpitation—with the slight characteristic physical signs, there is a similar probability in syphilitic persons. Gumma of the *right* heart may be suspected from dyspnœa unaccounted for by left heart disease or lung disease or dilatation of the heart when with it there is the slightest evidence of right heart difficulty in syphilitic persons. One factor influencing the diagnosis in all cases will be the evidences of previous syphilitic infection and the results of specific as compared with those of non-specific treatment; such evidence is always regarded as important in disease of other parts of the body, and we are not more or less dependent upon it in the diagnosis of cardiac syphilis than we are in the diagnosis of visceral syphilis in general.

Diagnosis of dilatation of the heart from syphilitic disease of the heart wall.—Inquiry into the previous history, the habits, and the general condition of the patient is required in determining whether any dilatation of the heart from which he is suffering is attributable to syphilitic disease of the heart wall. If the left ventricle is found to be dilated without valvular disease, nephritis, or other causes, which produce increased strain upon the heart fibre, it may be concluded that the dilatation is due to parietal weakness. Of the conditions producing such weakness fatty degeneration may be for the most part excluded, for it rarely gives rise to dilatation; but if it is suspected the age of the patient and the usual data which guide us in the recognition of fatty disease must be appealed to. Apart from fatty disease debility of heart fibre can only be due to myocarditis in some form; and if there be no history of acute fever or illness, and there is not present any cachectic state to weaken the heart-muscle, the myocardial change is in all probability a fibrous one; this becomes still more probable if no improvement results from the usual cardiac tonics; and if

the patient has a history or traces of syphilis, and specific treatment succeeds where digitalis, &c., has failed, there remains very little doubt that the dilatation of the ventricle is the result of syphilitic fibrosis. In certain cases of syphilis the patient becomes cachectic, anæmic, and feeble, with or without pyrexia, and some dilatation of the heart may occur as a result of the general condition. Without any fibroid heart lesion the dilatation and general condition improve together in these cases under anti-syphilitic treatment, but they are readily distinguishable from cases in which, the general health being good, there is dilatation from syphilitic disease of the heart wall. Dilatation of the *right* ventricle from fibroid heart disease is, perhaps, more difficult of detection than of left heart dilatation. This, however, it has in common with dilatation of the right heart from other causes. But that dyspnœa is produced by dilatation of the right heart from fibroid disease and that it is a very constant symptom in such cases is proved by the history and post-mortem appearances in many of the cases in the table; and in syphilitic persons persistent or paroxysmal attacks of dyspnœa without obvious cause, and even with but slight signs of right heart enlargement, should be looked on as possibly resulting from fibroid change.

Diagnosis of diffuse fibroid syphilitic disease of the heart-wall without dilatation.—When the fibroid change is of limited extent, though not forming a gummatous nodule, the only symptoms will be those such as are producible by gummata; in such cases the probability of the heart weakness being due to syphilitic fibroid changes must be adjudged upon by taking into consideration the age of the patient, the results of inquiry into possible syphilitic infection, and the effects of the ordinary cardiac tonics as compared with those of specific treatment. A due consideration of these will in many cases enable the cases of heart weakness from syphilis to be distinguished from those resulting from other causes.

When the fibroid change on the left ventricle is widespread, involving, perhaps, the musculi papillares as well as the ventricle wall, the cardiac debility gradually increases till it becomes extreme and the diagnosis is not difficult; indeed, it is much more readily made than in those cases where dilatation is present, for while many causes produce cardiac weakness with dilatation the causes of great cardiac weakness without it are few—in fact, only fatty disease; but this can only produce such extreme heart weakness as widespread fibrosis causes when present in an extreme degree, and then, as Walshe[10] points out, "its clinical evidences are more or less precise and positive." In addition, the age of the patient and the previous history will often enable us to distinguish between the two conditions. The course, too, of fibroid disease is very different from that of fatty degeneration, for when the latter has once reached such a point as to produce syncopal attacks, and irregular or almost imperceptible pulse, death ensues, whereas in fibroid disease patients may suffer from cardiac weakness sufficient to prevent their moving about and to suffer from a languor and apathy they cannot overcome and to keep them almost to confinement in bed and yet go on for months in much the same state. The distinction between diffuse fibrosis and fatty degeneration of the heart is not usually difficult. (This was evidenced in the two cases K and L, in both of whom it was agreed by those who saw them that there was extreme cardiac debility, but that it was not due to fatty degeneration.) These cases of general fibroid disease of the left ventricle without dilatation may be diagnosed when in persons mostly in mid-life sometimes later on there occur manifestations of a very chronic, gradually increasing cardiac weakness, with an extremely feeble pulse, sometimes very rapid and sometimes suddenly becoming slow, with tendency to syncope and an extreme general feeling of weakness, and with increasing languor and apathy. These cases do not improve under cardiac tonics, though they may temporarily give promise of improvement, especially under strophanthus.

Treatment of syphilitic disease of the heart wall.—This is the same as of syphilis of other internal organs.

CONCLUSION.

1. Syphilis may produce gummata or general fibroid change. 2. Gummata in the left ventricle, except of very small size, are dangerous to life, and when near the apex of the left ventricle may cause sudden death. 3. Gummata in the left ventricle may be suspected if in an individual with syphilitic antecedents there occur signs of derangement of the action of the left ventricle with symptoms of defective or embarrassed action, especially angina pectoris, tachycardia, syncopal or epileptiform attacks, or in the right ventricle when dyspnœa otherwise unaccountable occurs. 4. Extreme feebleness of the heart without dilatation gradually increasing in young or middle-aged persons who have had syphilis suggests syphilitic disease of the left side of the heart, and long-standing dyspnœa may point to similar disease on the right side of the heart. 5. Dilatation of either side of the heart in syphilitic persons may result from syphilitic fibrosis. 6. Hypertrophy of the heart without ascertainable cause and without corresponding increase in strength of heart suggests syphilis. 7. Aneurysm of the heart wall may result from syphilitic local lesions and may be fatal with or without rupturing. 8. It is probable that gummata and fibroid disease in early stages may be relieved or cured by the usual specific treatment, and there is every reason to believe that syphilitic lesions of the heart wall are not less amenable to treatment in their early stages than syphilitic lesions elsewhere, though no cure can be expected where advanced tissue changes are already produced. In what I have written I have devoted attention only to syphilitic disease of the heart wall apart from valve disease. It is certain that the small number of cases I have given in the table (and I might have added many more) must represent a much larger number of unrecorded fatal cases—cases in which no necropsy was performed or the fibroid condition was not recognised or reported, and a very greatly larger number of cases of persons who have suffered from syphilitic heart lesions without their producing death. It is, therefore, certain that syphilitic heart disease is more common than is generally recognised. And its importance is the greater because it affects persons at an earlier age that the usual degenerative heart conditions and may insidiously advance till it causes sudden death in persons in the prime of life and of apparent health.

There can be little doubt that syphilitic heart affections must affect the administration of anæsthetics, more especially as a life-long disease like syphilis is apt to produce local conditions that require operative interference not infrequently. Certainly cases are brought in of death under an anæsthetic from fatty disease of the heart in which the chief evidence of that condition is that the patient died under anæsthetic, and at the moment I write a case[11] is recorded of death under the administration of the A.C.E. mixture in which "the right ventricle was found dilated with fatty infiltration of its walls; the left ventricle was also dilated and there was some fibrosis of its walls." Dr. Kirk[12] found that chloroform, if we may judge from a few cases, is liable to give dangerous results in syphilitic subjects.

Upper Berkeley-street, W.

[10] Diseases of the Heart, p. 338.

THE REMOVAL OF SUPPURATING PELVIC TUMOURS: ILLUSTRATED BY TWO CASES.

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THE two cases which are related in this communication offer certain instructive features in common. In both the structures which were removed contained pus, and in both the tissues of the pedicle were unhealthy, not from infiltration of any new growth, but from inflammatory changes. Both patients were restored to health, but the details of treatment involve matter for comment. The chief subjects worth consideration are the management of unhealthy pedicles, washing out, and drainage.

CASE 1.—On March 8th, 1894, my friend Dr. Ilott of Bromley consulted me about a girl aged sixteen years who had been under his care for six weeks. She was thin, but had been fairly healthy till the present illness. When Dr. Ilott first saw her she showed symptoms of peritonitis an

[11] Brit. Med. Jour., Feb. 3rd, 1895.
[12] Ibid., Dec. 12th, 1896, p. 1705.

effusion into the left pleura. A few days later there was evidence of free fluid in the peritoneum, the temperature reaching 104° F. Under appropriate treatment all the acute symptoms subsided; then a hypogastric tumour was detected. The periods had been absent for five months. When I first saw the patient the abdomen was almost flat, excepting below, where a swelling rose above the pubes, reaching half-way to the umbilicus. It fluctuated obscurely and was but slightly moveable. The cervix lay high up close to the pubes, the sound passing two and a half inches upwards and forwards. The tumour, which moved with the uterus, dipped deeply into Douglas's pouch and seemed to be closely related to the posterior part of the cervix. Diagnosis in a case with the above symptoms was difficult, though I suspected either a tuberculous abscess or a suppurating dermoid cyst, the clinical evidence of a low form of inflammation being strong. Sarcoma was improbable, though malignant ovarian growths are proportionately frequent in girlhood and are generally accompanied by amenorrhœa. They grow rapidly and seldom suppurate, whilst in Dr. Ilott's patient inflammatory changes had appeared before the tumour had reached a high stage of development. Menstruation often ceases from any cause of debility, and examination of the uterus showed that pregnancy was out of the question. I operated on March 18th, assisted by Dr. Ilott and Mr. Yolland. The abdominal incision exposed a dull greenish tumour adherent to the parietes and thickened omentum and intestine. Above the tumour the peritoneum and bowels seemed to be healthy, so I protected them with a flat sponge. On puncturing the tumour pus mixed with yellow grease escaped and a few hairs were seen. I injected iodine water into the cavity of the suppurating dermoid ovarian cyst, for such the tumour clearly was, a tooth being discovered as well as hairs. Then I detached the cyst from very intimate adhesions. It lay in a kind of capsule, practically the wall of an abscess. The left tube, obstructed and dropsical, ran over on the surface of the cyst. I succeeded in finding a true pedicle, after detaching the tumour from the back of the uterus. The tissues of the pedicle seemed to be involved in the suppurative process. Having ligatured the ovarian vessels, I transfixed the pedicle and tied it with No. 4 silk, cutting away the tumour. The right appendages were bound down by adhesions, but being otherwise sound I did not remove them. The result showed that this step was right. I simply liberated the ovary and tube from adhesions. As some of the contents of the cyst had escaped into the general peritoneal cavity I thought it right to flush the peritoneum at once with hot water, repeating the process before closing the abdominal wound. Lastly a drainage-tube was passed into Douglas's pouch. Much trouble followed, owing to the condition of the pedicle. After removal of the drainage-tube a few days after the operation I syringed out the cavity with antiseptics. On the fifth day the ligature came away as well as the No. 2 silk with which I had tied the vessels in the outer border. In spite of all precautions there was suppuration of the subcutaneous tissues, preventing primary union of the skin, though the muscular layers united firmly. After discharge of the ligatures the wound began to heal rapidly, the cavity filling up. On May 5th the period returned after an absence of nearly seven months. Dr. Ilott wrote to me in March, 1896, two years after the operation, saying that "the patient is in excellent health, quite plump and strong. There is no yielding of the cicatrix, nor pain at the site of operation. The period is quite regular every month; it is rather scanty, and lasts about three days."

The following case is an instructive example of very chronic inflammatory disease of the appendages.

CASE 2.—In 1886 Mr. Kingston Barton of South Kensington asked me to see in consultation a young married woman then aged nineteen years. She had suffered from acute pelvic pain since a recent miscarriage. I found the right appendages enlarged and tender, but quite moveable, and agreed with Mr. Barton that no operation was justifiable. Under his care the painful symptoms disappeared. The patient married for the second time early in 1890. A few months later she caught a severe chill through travelling by train in damp boots. Pelvic pains occurred and the periods ceased. I examined her in June of that year and found that she was pregnant. I could not detect any inflammatory deposit in the pelvis, but pelvic exploration is difficult in a pregnant subject. Dr. Clapham of Wimbledon attended her when she was confined at term. The child yet lives. In 1893 she bore another healthy child. Severe abdominal pains set in three months later. Dr. Sheppard of Putney kept her in bed for fourteen days. The pain passed away. In 1894 she had measles for the first time in her life. Acute inflammation of the ovary followed. Under the treatment of Mr. Pedler of Knightsbridge her health improved, but she did not rest sufficiently to ensure perfect cure. In February, 1895, a violent attack of pelvic pain occurred at the period, with a great rise of temperature. The patient was now twenty-eight years of age and well nourished, but her face was deeply flushed. I examined her early in April. A soft, tender, fluctuating tumour could be felt in each iliac fossa, the right being the larger. The uterus was three inches long and moveable; the swellings extended low down in the corresponding fornices. The pulse was 144, and the evening temperature 100·6° F. A few days later it rose to 102·8°, and the period appeared. I wished to explore directly it ceased, but was prevented from doing so by several complications. On April 17th one eye became inflamed. Mr. Lindsay Johnson examined her and diagnosed keratitis of bacterial origin. It subsided, but the pelvic condition did not improve. On May 8th the pain was very severe. The swelling in the left iliac fossa was tense and pressed down on the rectum. As I particularly wished to avoid any fistulous tracks communicating with the intestine I tapped the swelling through the vagina, withdrawing about five ounces of pus. The period appeared on May 10th. The patient, who had been kept in bed since April 8th, was now in a more favourable state of health, but the swellings began to increase in size. On May 18th I operated, with the assistance of Dr. Hubert Roberts. An incision three inches long was made in the middle line and was found to be quite sufficient for the subsequent manœuvres. The first thing visible when the peritoneum was divided was the right swelling, a big cyst, which I tapped with a long trocar and cannula. Pus came away; then I used an aspirator, removing a pint of very thick yellow pus free from odour. I protected the parts near the cyst by placing iodoform gauze around the point selected for puncture. By this procedure, repeated on the left side, not a drop of pus strayed into the peritoneum. I washed out the cavity of the cyst with iodine water. Then I separated the cyst from universal surrounding adhesions. It was the right tube converted into a thick-walled abscess and extremely dilated. The ovary was broken to pieces during extraction. I secured the ovarian vessels with No. 3 silk and then transfixed the pedicle and tied it with No. 4 silk. The tissues were infiltrated with inflammatory deposit, but not suppurating. The pedicle was then divided. I touched the raw surface with tincture of iodine, after carefully trimming away with scissors the exposed part of the tubal mucous membrane. On the left I found a similar morbid condition. The omentum was thickened and otherwise unhealthy, so I ligatured and divided it high up, far above the left cyst to which it was strongly adherent. I was much relieved to find after tapping and injecting with iodine that the cyst wall could be detached from the vagina and rectum without damage to either. The pus, owing to the tapping, I presume, was slightly sour. After securing and dividing the pedicle, as on the right side, I washed out the pelvis with iodine water, placed a sponge in Douglas's pouch, and introduced the sutures. As there was no evidence of oozing when I drew up the sponge, and since I felt persuaded that no pus had escaped into the peritoneal cavity I closed the wound. I wished to avoid the evil effects of suppuration of the pedicle and coming away of the ligatures. The drainage-tube is apt to promote that complication. Since the pedicles were not actually suppurating, as in the first case, I considered that closure of the wound was the best way to ensure speedy recovery. Fortunately the patient was spared the annoyance which was probably inevitable in the former case, where the pedicle was already suppurating when it was secured by ligature. Convalescence was protracted, owing to a second attack of keratitis beginning on June 20th. By the end of the month, however, the patient was well. I saw her in December, 1896, when she was in excellent health. The periods had been regular since August, 1895.

There are certain special considerations relating to each of these cases. In the first the right appendages were saved after being freed from the adhesions which bound them down. They showed no signs of disease save what was due to the peritonitis around them, and when liberated they were restored to their functions. The catamenia have returned and the patient is capable of bearing children. Thus the removal of the right appendix would have been wrong. Even in chronic pelvic disease in much older subjects,

when one tube and ovary have been hopelessly damaged, their fellows may sometimes be spared after liberation from adhesions which keep them bound down low in the pelvis, interfere with their blood-supply, and impede their functions. On the other hand, when, as in the second case, bilateral pyosalpinx is evident, both appendages must be removed, else the operation will be useless and its danger much increased. In the first case the suppuration was unilateral, being confined to the dermoid cyst of the left ovary and its pedicle.

The most remarkable feature in the second case was the long duration of pelvic disease. I observed it nine years before operation. Four years after its first appearance and subsidence it was lit up afresh by a chill. The same phenomenon is familiar to all in cases of dental caries. Yet the patient conceived and bore two children. Four years after the chill, acute exanthematous oöphoritis occurred—a well-established disease. The inflammatory changes extended to the tubes, and the parts through want of care at length became irremediably diseased. The tumours full of pus were the tubes, each bent on itself at a very acute angle, and not suppurating tubo-ovarian cysts. The frequent error of mistaking the latter for the former and overlooking the ovary, often small and adherent to the outer side of the cyst, can be avoided by a little pathological knowledge. The surgeon must ever be sceptical about reported "ovarian abscess."

Of the three general considerations suggested by these two cases unhealthy pedicle must be considered first. In an uncomplicated ovariotomy the pedicle of the cyst is quite healthy, its tissues being free from inflammatory deposit. The tube bears a sound mucous membrane. Experience shows that the ligature is well tolerated in such a case. The changes undergone after the operation are well known. Conditions are from the first clearly in favour of such a pedicle. When, on the other hand, inflammatory processes are in progress in any of its elements the case becomes complicated. The ligatures will lie amongst tissues that will not readily tolerate their presence. The process by which the distal part of the stump is preserved is unfavourably modified when the tissues of the pedicle are infiltrated. A good deep groove with the bulging structures on each side of the ligature accurately in contact with each other is not so easily made as when the parts are healthy. Nevertheless, an inflamed pedicle of a common multilocular cyst rarely gives trouble after operation. The tissues in the stump are placed in a better position for recovery from inflammation. The cutting drains it, and its large vessels, no longer employed in carrying blood to and from a big tumour, close up. The stump shrinks up, though, no doubt, not so quickly as when free from morbid changes, and ultimately passes through the salutary processes which begin earlier in a pedicle healthy from the first.

The case is much less favourable when the inflamed pedicle is connected with a small structure also inflamed, such as a small dermoid or a suppurating tube or ovary. There is much less of that salutary shrinking which takes place when a large pedicle full of engorged vessels is severed from a big tumour. The distal part of the stump is not so early or so readily supplied with nutrition, as the groove is not easily made deep enough when the ligature is tied, nor do the tissues bulge and touch each other so readily, nor does the proximal side so speedily throw out nutritive lymph to save the distal structures. Disease of the tubal mucous membrane is a yet graver complication. Without precautions a patient may feel worse after the removal of diseased appendages than before. The ligature may ultimately lie in an abscess cavity or the stump may develop into a hard, painful, inflamed mass, more or less strongly adherent to adjacent structures. In the first case the pedicle was already suppurating. I was obliged, of course, to secure it with a ligature. The silks came away within a few days. The relation of the management of a pedicle in this condition to drainage is self-evident, so this subject will again be considered further on. In the second case there was no evidence that the suppuration had extended beyond the tubes. The pedicles bore the ligatures well. As there was a pyosalpinx on each side I took care to trim away the mucous membrane of the tube, as it bulged from the cut surface of each pedicle, and to touch the exposed tubal coats with tincture of iodine. Thus was avoided as much as possible the danger of leaving a focus of suppuration in each fornix. When, therefore, a pedicle is actually suppurating it must be ligatured in order to prevent hæmorrhage. In every other respect the ligature is absolutely pernicious. The pelvis must be drained to allow of the escape of fragments of suppurating tissue; the silks will possibly come away within a few days. More often the stump becomes healthy and tolerates the ligature after a time. When the tissues of the broad ligament are inflamed, yet the suppuration is limited to the tube, a ligature may be safely applied and the abdominal wound closed, provided that the exposed tubal mucous membrane be trimmed and the stump of the tube disinfected.

Washing out the peritoneal cavity is necessary after the removal of a large abdominal tumour, where numerous vascular adhesions have been separated, or where blood or the contents of cysts have been scattered about in uncertain directions. This practice is a true process of flushing, by which alone can noxious material be thoroughly dislodged from distant recesses of the abdomen. When an inflamed pelvic tumour or a suppurating tube has been carefully removed, and the operator feels sure that he has prevented the escape of any of its contents into the peritoneum, flushing is not only needless, but it is dangerous. Infection is thereby promoted rather than prevented. In the first case I was obliged to flush out the general peritoneal cavity, since I knew that pus had actually escaped upwards. I regretted having to take that step, but I could not, of course, trust to the disinfecting of the interior of the cyst by the injection of iodine water earlier in the operation. In the second case no pus was allowed to escape into the peritoneal cavity and flushing would have been, in my opinion, criminal. It would simply have carried septic material upwards. The washing out of the pelvis with hot iodine water—true irrigation—counteracted shock and stopped capillary oozing in Douglas's pouch, a grave promoter of sepsis. The iodine was added because an antiseptic was demanded. Drainage was clearly indicated in the first case. I could not have closed in a cavity lined with suppurating granulations deposited on adjacent intestine and peritoneum. Besides, to shut up a suppurating pedicle in the peritoneum would have been bad surgery. The tube was removed within a few days, for there is danger of perforation of the rectum in these unhealthy cases if the tube be kept in too long. The cavity was afterwards syringed out with antiseptics till it closed. The ligature came away, but that accident involved no trouble, and the patient has been free from pain ever since the operation. It must not be forgotten that needless drainage promotes morbid changes around the ligature. Hence I did not use the drainage-tube in the second case, where there was no evidence that the suppuration had extended outside the cystic tubes and the vaginal puncture had closed. In short, when a suppurating pelvic tumour is removed drainage is necessary if any suppurating structures are left behind; but if not, then, other conditions being favourable, the drainage-tube will not be needed.

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VITALITY.

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VI.[1]—Vital Changes in Nerve Textures (*continued*).

In the very elaborate structures taking part in special sense and in mental action, as well as in various tissues and organs, the substance, the actual matter upon which origin, development, growth, formation, and action depend, is in a living state. This living matter is invariably found to contain a very large proportion of water, a condition which must permit the very free movement of the particles amongst one another. These movements characterise all forms of living matter and are more active when living matter is in a state of great activity. All the remarkable properties of various tissues and at every period of life depend upon the powers of the living matter from which they originated. The living matter alone renders possible increase and growth in early life, maintenance when fully formed, including the

[1] Nos. I., II., III., IV., and V. were published in THE LANCET of Feb. 22nd, April 11th, June 13th, Aug. 29th, and Oct. 17th, 1896, respectively.

replacement of the matter which is used up during action while life lasts, and repair in case of injury. By the death of structureless living matter all further normal action is rendered impossible, though wonderful structural arrangements already produced may be intact, readily demonstrable in very minute details, and capable of being indefinitely preserved in many cases. Of all our organs, those concerned in hearing and sight are probably the most complex and elaborate in their minute structure and most remarkable as regards responsive activity. The many different structures with their different properties present in these organs work together in perfect harmony, but the actual particles engaged are so very minute that their form, arrangement, and relations to one another and to tissues has not yet been satisfactorily demonstrated. Organs of sight and hearing and other sense organs of some classes, though appearing to be mainly composed of rigid, hard, and almost dry textures, perhaps differing widely in structure, agree in this—that the active power is invariably due to the presence of matter in a living state, which is always moist.

All the efforts—and they have been many—to discover analogies between the almost perfect organs of living things and the scarcely less striking pieces of apparatus designed and constructed by man for the transformation of energy have signally failed. That such comparisons should have been attempted by anyone who had even but very imperfectly studied the special structure and arrangement of the apparatus in both cases and was acquainted with the general phenomena occurring during action, to say nothing of their so-called evolution, is, indeed, remarkable, seeing the utter want of resemblance in appearance, composition, arrangement of parts, origin, and action between the natural organs and the constructed apparatus. Take, for example, the electric organ of a living organism and any form of of electric apparatus made by man.

The difficulty of making out the exact arrangement of the various anatomical elements, and their precise action in many of the sense organs, even amongst the lowest organisms, is so great that we are still unable to form an accurate idea of their action, and particularly in the class of insects are the arrangements on a scale so minute that it is not possible to clearly demonstrate the details with the highest magnifying powers. And in these cases in which the general arrangement has been demonstrated, the manner in which, say, in a light-emitting organ, the transformation of energy is effected, has not been determined. But there can be little doubt that the matter actually engaged in effecting the re-arrangement of the constituent elements concerned in the process is in the living state. The power by which all the movements and arrangement of the atoms are directed and regulated is vital power, which power, as I have shown, must be placed in a category by itself, being entirely distinct from all known agencies and forces which operate in the non-living world.

No essential points in common between any living form and any non-living mechanism constructed by man have been pointed out, although some distinguished men of science have stated that in certain cases the manufactured apparatus has been more free from defects and more perfect in its action than the natural structure formed from the structureless living matter according to processes which have been in unceasing operation through countless generations in past ages. To adversely criticise, for instance, some parts of the visual apparatus without taking into consideration the fact that every part concerned in sight has somehow during its formation in darkness adapted itself, or has been adapted, for use under varying conditions of distance, light, colour, and the nature of the surrounding medium is surely neither fair nor reasonable. No artificial optical arrangements yet made exhibit any such power of adaptation. Moreover, the latter are for the most part but aids to ordinary natural vision and are useless in the absence of the eye, as well as destitute of any means of being properly focussed without the aid of the hand acting in conjunction with the eye. Nor could they have been constructed without eye and hand and the peculiar endowments of these organs transmitted through countless generations of human beings. How, then, is it possible to compare the eye of a living organism with an optical instrument which is but an artificial aid to the eye in certain cases, and which is made and adapted to suit the natural organ? Nor must we omit to bear in mind that, unlike any optical instrument, the eye comprehends many complex and delicate structures, which differ somewhat in structure and arrangement in the different types of eye In every case the formation of these tissues was prepared for, and their development commenced, long before any indication of the characters and action to be ultimately attained could be discovered, each one being developed according to a predetermined plan or design and prepared for in the absence of light. Nor are the several tissues, which when fully formed work together in harmony, all developed at a uniform rate or in the same periods of time. Are we not, then, compelled to admit the existence of a peculiar governing guiding power—of a nature quite distinct from any agencies or properties known in connexion with the non-living world? Is it conceivable that in consequence of any advance of our knowledge concerning the non-living, the production of these wonderful structures and their relations to one another will be explained by physics or that they will ever be produced artificially? They all grow out of, and are formed from, the structureless, which has been produced by—has descended from, pre-existing structureless, and in this way only.

Considering, then, that in nature there are several kinds of organs designed and constructed to discharge corresponding offices and also adapted to the particular conditions under which their possessors live, each kind having special powers of its own and working under different conditions as regards temperature, pressure, light, and kinds of foods,—considering that every peculiarity and every variation in structure is due to inheritance from previously existing organisms, and that corresponding tissues and organs are perfected in very different periods of time, at different temperatures, formed from different kinds of food, retaining their activity in some instances for many years, in others for months, weeks, days, or even hours only, is it not unreasonable, at any rate until we learn more than is yet known concerning the actual phenomena proceeding during their formation, to suggest that the time will come when corresponding organs, or any apparatus performing like functions, will be constructed by man?

The living matter from which, through the agency of its wonderful vital endowments, all tissues proceed seems to be composed of comparatively few elements, the properties of which, so far as investigation has yet gone, afford no explanation or clue to the nature of the powers at work or of the exact way in which the results are attained, much less of the series of changes which occur as the positions of the elements with respect to one another become altered and take up new relations, necessitating the production of the particular substances with their special properties predetermined from the first, often in darkness, or at least under circumstances from which the access of all ordinary light rays is excluded.

No differences in chemical composition or in molecular constitution as yet discovered in any form of living matter will account for the production of any tissues or organs. Nor is it in the least degree probable that differences in vital power, upon which the formation of every form of structure and the discharge of function depend, will ever receive an adequate physical explanation. Nothing is known in connexion with the action of any sense organ or any kind of nerve action which would justify the conclusion that ultimately it will be shown that these are consequent upon any form of change not directed and governed by vital action. Why, for instance, the hard matter of some cuticular structures should be produced by one kind of living matter, soft mucus by another, bile by a third, nerve current by a fourth, and so on, has not yet been explained. It is certain that these several forms of living matter, which give rise to the production of such different substances and effects, have all been derived by descent from a form of living matter which did not possess the power of any one of them or any of the several formative powers at length manifested by its descendants. Nor can any one of these differences in power be shown to be due to the influence of external agencies or conditions acting upon them. It seems to me that to vital power temporarily associated with the matter of the living particles and capable of directly acting upon their elements and of altering their relations to one another must be attributed the general and special characteristic activities manifested. The wonderful movements and the re-arrangement and alteration of position and relation with respect to one another of the component elements of every known kind of living matter must, I think, be referred to the exercise of this power alone. And though it may be said that we only assume the existence of vital

power in causing the changes which ensue in the matter supposed to be under its sway, it is certain that no phenomena at all comparable with those which characterise every particle of matter that lives, whether it be high or low, simple or complex, have been manifested by any form or state of matter which is not living.

All attempts to show that life, vitality, in any living particle, is capable under any circumstances of being converted into, or made to take the form of, heat, light, electricity, or other form or mode of motion have so far signally failed. Indeed, the manifestation of various forms or modes of energy in living things appears to be a direct result of a certain rearrangement of the atoms of living matter, the rearrangement being effected by the operation of vital power upon the material particles with which it is temporarily associated. The change in position and relation of the atoms is no doubt accompanied, though not caused, by chemical action, and in many cases by the evolution of heat, light, or electricity. In the present state of our knowledge, as it seems to me, this is the nearest approach to an explanation that, in strict accord with known facts and reason, can be advanced, and, indeed, the only way in which the rearrangement of the particles, which undoubtedly takes place, can be accounted for.[2]

I submit, then, that so far all the facts adduced and the arguments founded upon them establish the conclusion that the living matter which is directly concerned in the development and formation of the most complex and highest organism, organ, or tissue, be it vegetable or animal—man, an eye or a brain cell—exhibits no special characteristic which would enable us to decide what particular organism, organ, or tissue was about to be produced, or to distinguish it from living matter from which some low and comparatively simple organism, organ, or tissue of the most passive and unchanging kind would be evolved. The results of the influence of life power on matter cannot, in fact, be foreseen. The results may be observed and the resulting structures subjected to investigation, but the power itself is not demonstrable and cannot be isolated. It stands by itself among natural agencies. Its origin is unknown and the means by which it is communicated to non-living particles undiscovered and perhaps undiscoverable. That vital power is transferred without loss is quite certain. Nothing is added to the weight of the matter when it becomes living—nothing taken from it when it ceases to live. Vital power in many cases undergoes certain modification as regards its special characters, probably at a time when it is least active and perhaps at a time when it appears to be in a dormant state, the modification in power being evidenced in the departure from the characters, properties, and action of the tissues and organs formed.

I claim, then, vital power—vitality—as the agency upon which the composition, characters, minute structure, and action of all tissues and organs in every living organism directly depend. In the absence of vital power not a structure characteristic of any living form in nature could have existed. It is the wonderful operation of vital power which distinguishes all living from all non-living. Vital power effects the separation from one another of elements in combination in the various substances which constitute the pabulum of the living, rearranges these elements, and determines their new position, so that new combinations resulting in the formation of particular compounds are occasioned. Such analytical and synthetical operations are of a special kind and are always proceeding, slowly or quickly, in every particle that lives, and many of the products as regards properties, composition, and action—predetermined, as it were foreseen—are inimitable and obtainable only from organisms in a living state or that have lived.

These general conclusions will be further strengthened by observations which will be advanced in the next communication, "On the Interstitial Circulation of Living Organisms in Health and Disease."

(To be continued.)

[2] Seeing that energy is indestructible, while life—vitality—ceases without undergoing conversion into any form or mode of motion, and cannot, therefore, be indestructible in the same sense as that in which matter and energy are held to be indestructible. It cannot, however, be said to be impossible that some life may be destructible and some indestructible, but in this case the supposed destructibility or indestructibility must be due to a potency which can be perpetually multiplied without any addition to, or change of, or subtraction from, any material forces or properties associated with the particles concerned.

THE ACTIVE PRINCIPLE OF INDIAN HEMP: A PRELIMINARY COMMUNICATION.[1]

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Introduction.—The want of uniformity in the preparations of Indian hemp has so often led to serious consequences in practice that many practitioners have discarded the drug as worthless or dangerous. Others, finding it of benefit in certain diseases, have expressed a hope that some means of standardising it would be discovered or the active principle of the plant isolated. Of the two conditions, the isolation of the active ingredient is the more important and its use is more likely to lead to uniform results in treatment. Quite recently such a pure active product has been obtained and the mystery which has hitherto enveloped Indian hemp seems in a fair way to being cleared up. Many points still need investigation, the most important from a medical point of view being the gradual change which cannabis compounds undergo by keeping. Both by practical experience and scientific experiment it has been shown that the active ingredient gradually loses its power, and at present we know of no means of preventing this. A very interesting case of this loss of activity is described by Thomas Smith.[2] He found that cannabin, which, when freshly prepared, produced a narcotic effect in doses of two-thirds of a grain, after exposure to the air for three years became absolutely inert.[3] In India, it is said, dealers in this drug refuse to buy the old crops after the new ones are gathered, and after two years the crops are publicly burnt in the presence of an Excise officer. The cause of this growing inertness is probably due, as Leib Lapin[4] suggests, to the oxidation of the active ingredient. He mentions experiments in support of this view, but these are not sufficiently convincing. Age, however, will not account in all cases for the uncertainty of commercial preparations. More often it is due to the more or less inert natural products from which these preparations are made. That the physiological activity of the hemp plant varies with the locality in which it is grown is well known, and it has been suggested that the gánjá of Bombay and the Central Provinces, which is "infinitely inferior" to that of Bengal, finds its way into European pharmacy. "There is also good reason to believe that the Indian hemp merchants, who deal with the drug in the first instance as an article of excise consumed locally, are in the habit of supplying to the European drug exporter or his agents samples for which, owing to the partial or complete loss of activity, they can no longer find a native market."[5]

Natural products.—The principal natural products obtained in India from the hemp plant, excluding the fibre, oil, and seed, are known as charas, gánjá, and bhán.g.[6] *Charas* is a resinous exudation found on the leaves, young twigs, immature fruits, and bark of the stem, and is regarded, and with justice, as the most active preparation of the hemp plant. It is gathered by rubbing the flower-tops between the hands, or by men, naked or wearing leather coats or skins, running through the fields; it is then scraped off and made

[1] Suggested by Dr. Walker's letter in the British Medical Journal of Nov. 7th, 1896, p. 1382. The experimental part of this communication was read before the Cambridge Philosophical Society on April 19th, see their Transactions, vol. ix., part iii., p. 149.

[2] Pharmaceutical Journal [3], vol. xv., p. 853.

[3] O'Shaughnessy also found that the extract which he himself brought from India did not produce in England the effects which he anticipated (Pharmaceutical Journal, vol. vi., p. 71). This may have been due, in part at least, to the age of the preparation. Christison (Watt's Dictionary of the Economic Products of India, vol. ii., p. 123), on the other hand, states that he used for some years an alcoholic extract sent to him from Calcutta twenty years before, and which was still as powerful as ever to relieve pain and obtain sleep. Casiccia (Rivista di Caimie, Medicina e Farmacologia, July, 1883, p. 326; Virchow's Jahresberichte, 1883, Band i., p. 438) also quotes a case of poisoning with 2 grammes (30 gr.) of a very old extract.

[4] Ein Beitrag zur Kenntniss der Cannabis Indica. Dissertation, Jurjew, 1894, p. 66.

[5] Imperial Institute Journal, vol. ii., No. 15, p. 105 (March, 1896).

[6] This account has been compiled from Watt's Dictionary of the Economic Products of India, vol. ii., p. 113 et seq., to which the reader is referred for further information, and from a private letter from my friend Mr. John Stephenson, I.M.S. A good account is also given in Flückiger and Hanbury's Pharmacographia, p. 492.

into cakes or pills. Most of the substance is prepared in Kashmir and is imported into Northern India (the Punjab principally and the North-West Provinces) from there. It varies considerably in activity, being adulterated to a great extent with powdered leaves and other substances. *Gánjá* is composed of the "female flowering tops with the resinous exudation on them." After gathering, these are exposed to the heat of the sun and then left over-night to the influence of the dew; afterwards they are pressed into shape by the stamping of native men. Both gánjá and charas are cultivated products and are chiefly used for smoking. *Bhâng* comprises the mature leaves, and in some parts of India the fruits and very young twigs also, but not the stems. By trituration with sugar and water a beverage is made which is known as haschish or bhâng. It is the least injurious form of cannabis and the one most frequently used. It is often prepared from wild plants growing around the native huts; consequently it is inexpensive and the greater part probably escapes duty. Various other preparations and natural products are known, but with these we are not concerned.

Historical.—The first European to investigate with any degree of scientific accuracy the action of Indian hemd was O'Shaughnessy[7] (1839). He used an alcoholic extract made by boiling freshly prepared gánjá with rectified spirit in a Papin's digester and evaporating the spirituous extract to dryness on a water bath. The substance thus obtained was very active; half a grain produced a distinct effect, and one and a half grains O'Shaughnessy regarded as a large dose. The estimated yield from fresh gánjá was 20 per cent. The process was subsequently modified by Robertson[8] (1846). He used a percolation apparatus, and extracted the drug with distilled alcohol. A green product was obtained, which he stated (probably erroneously) to be six times stronger than O'Shaughnessy's brown extract. The resin in a state of comparative purity was next obtained by T. and H. Smith[9] (1846). They digested bruised gánjá in successive quantities of warm water until the liquid came away colourless, then in sodium carbonate solution for two days at a moderate heat. The residue was next pressed, washed, and dried and then extracted with rectified spirit. The spirituous extract was now treated with milk of lime, filtered, and the excess of lime precipitated by sulphuric acid. A little animal charcoal was added, the mixture agitated, and filtered. Most of the spirit was now distilled off, water was added, and the remaining spirit allowed to evaporate gradually. The residual resin was then washed until free from acidity and bitterness and afterwards dried in thin layers. The yield was 6·7 per cent. Thus obtained the resin, to which they gave the name of *cannabin*, was extremely active; two-thirds of a grain produced narcosis and one grain decided intoxication. De Courtive[10] (1843), independently of Messrs. Smith, also isolated an active resin. This was obtained by extracting the leaves of Algerian hemp with spirit at a moderate heat, precipitating with water, re-dissolving the precipitated resin in alcohol, and evaporating. The yield was 9·10 per cent. Five centigrammes (about two-thirds of a grain) produced a distinct effect. Smaller quantities of a similar though less active product were obtained from plants grown in France.[11] Personne[12] (1857) controverted the results obtained by the brothers Smith. By distilling hemp with water he obtained an oily body[13] which he subsequently separated into two distinct compounds—*cannabene*, a liquid with the formula $C_{10}H_{20}$, and *hydride of cannabene*, a crystalline solid[14] with the formula $C_{9}H_{14}$; the latter body is physiologically inactive. Arutinianz believed[15] that he had obtained the hydride of cannabene, but as he concludes, according to Lapin, as to the identity of the two from the percentage of carbon present, this is doubtful. Personne attributed the effect of cannabis in great part to the cannabene he obtained, but on totally insufficient grounds, and he further states that by distilling Smith's resin with soda-lime at 300° C. (572° F.) the residue was rendered inert. Considering the heroic treatment we may, perhaps, not question this, but as the dose given (from 0·2 to 0·5 *centi*gramme) would be inadequate to produce any effect proof is wanting.[16] Messrs. Smith[17] themselves had shown that the activity of the resin was not due to any very volatile compound by exposing it to a temperature of 180° F. (82° C.) for eight hours freely to the air: the product was still as active as before. Vignola[18] (1895) has recently shown that Personne's cannabene is an impure sesqui-terpene. The pure substance he obtained by distilling in a current of steam, extracting the distillate with ether and subsequently purifying by repeated distillation from metallic sodium. It was then found to have the formula $C_{15}H_{24}$, and appears to be the same body as was obtained by Valenti[19] in 1880 from ordinary hemp. Moreover, Roux[20] proved by researches on animals that the ethereal oil was inactive, whereas an alcoholic extract was a decided intoxicant.

Nothwithstanding the investigations of O'Shaughnessy, Smith, and De Courtive it was thought that cannabis might contain some alkaloidal principle. Preobraschensky[21] (1876) obtained nicotine from a specimen of haschish obtained in Turkestan and from the flowering tops of the plants. As cannabis preparations are usually smoked in combination with tobacco, Dragendorff and Marquiss[22] suggested that the nicotine was derived from admixture with this substance—a supposition proved by Siebold and Bradbury[23] (1881) and Kennedy[24] (1886). Although Kennedy failed to obtain nicotine he was of opinion that an alkaloid was present, and Siebold and Bradbury also isolated a varnish-like base which they termed *cannabinine* and which gave alkaloidal reactions. The substance had an odour of coniine, but was not identical with it. Only two grains were obtained from ten pounds of drug. Arutinianz[25] and Masing,[26] on the contrary, obtained no alkaloid. In 1883[27] Hay discovered an alkaloid which produced tetanus in frogs and to which he gave the name of *tetano-cannabine*. It was present in very small amount and its elementary composition was not determined. His results led him to believe that other alkaloids were present, but these do not appear to have been isolated. Denzel[28] (1885) also obtained a tetanising alkaloid from hemp, but Warden and Waddell[29] (1884), working on large quantities of material, obtained no such compound. It is only fair to state that the process employed was slightly different to that of Hay, and a cat instead of a frog was used to determine its effect. A nicotine-like substance was obtained, but this proved to be physiologically inert

[7] On the Preparations of the Indian Hemp or Gunjah: Calcutta, 1839. Also, Transactions of the Medical and Physical Society, Calcutta, 1839; Journal of the Asiatic Society, vol. viii; Bengal Dispensatory, 1842, p. 569; Provincial Medical and Surgical Journal, 1843, pp. 345, 365, 397. The leaves of European hemp had previously (1823) been examined by Tscheepe (Chemische Untersuchung der Hanfblaiter, Dissertation, Tubingen).

[8] Pharmaceutical Journal, vol. vi., p. 70.

[9] Ibid., vol. vi., p. 171 (see also p. 127).

[10] Journal de Pharmacie et de Chimie [3], tome xiii., p. 427. Comptes Rendus, tome xxvi., p. 509.

[11] Other investigations are also recorded about this time. Foy (Journal de Pharmacie et de Chimie [3], tome xiii., p. 350) extracted haschish with water, alcohol, acetic acid, white and red wines, butter, lard, and olive oil, but did not succeed in adding much to our knowledge. Martius (Gmelin's Handbook of Chemistry, Cavendish Society's edition, vol. xvii., p. 447) obtained a shining clear brown resin.

[12] Journal de Pharmacie et de Chimie, tome xxxi., p. 46.

[13] Bohlig (Pharmaceutisches Centralblatt, 1840, p. 519) had previously obtained an oily compound with similar physiological properties from European hemp.

[14] Personne gives the formula in the old notation—$C_{20}H_{20}$ and $C_{18}H_{14}$. The formula of the last-named body is erroneously given in most books as $C_{18}H_{22}$. Personne gives the percentage composition C 84·02; H. 15·98, which more closely approximates to C_7H_{16}.

[15] Chemischen Untersuchungen des Indischen Hanfs. Dissertation, St. Petersburg, 1881. Quoted by Leib Lapin, p. 35.

[16] Personne appears to have fallen into error with regard to the activity of Smith's resin. This is stated to produce a distinct action in doses of 0·05 centigramme. It should have been *gramme*. The dose of residue given, therefore, was too small to produce any effect, even with the original substance.

[17] Loc. cit., p. 173.

[18] Gazzetta Chimica Italiana, vol. xxv., i., 110. Abstracted in the Journal of the Chemical Society, vol. lxviii., i., 623.

[19] Ibid., vol. x., p. 479. Abstracted in the Journal of the Chemical Society, vol. xl., p. 284.

[20] Bulletin Général de Thérapeutique, Dec. 15th, 1836, p. 492. Curiously enough, Roux states that an ethereal extract produces insignificant results.

[21] Pharmaceutische Zeitschrift für Russland, 1876, p. 705. Also Dissertation, St. Petersburg, 1876. Quoted by nearly all writers.

[22] Pharmaceutische Zeitschrift, 1877. Abstracted in the Year-book of Pharmacy, 1878, p. 248.

[23] Pharmaceutical Journal [3], vol. xii., p. 326; Year-book of Pharmacy, 1881, p. 463.

[24] Pharmaceutical Journal [3], vol. xvii., p. 463.

[25] Loc. cit.

[26] Dragendorff: Die Gerichtlich-Chemischen Ermittelung von Giften, zweite Auflage, p. 240.

[27] Pharmaceutical Journal [3], vol. xiii., p. 993.

[28] Pharmaceutische Centralhalle für Deutschland, 1885, No. 48, p. 540.

[29] Indian Medical Gazette, vol. xix., p. 259. I was unable to find the continuation of the paper, but an excellent account is given in the Pharmaceutical Journal [3], vol. xv., p. 594.

Jahns[30] (1887) also states that *tetanin* does not exist. More recently (1891) H. F. Smith[31] isolated an alkaloid resembling coniine from Indian hemp, but in such small quantity (0·75 milligramme per kilogramme) as to render it therapeutically unimportant. Still more recently (1895) Marino-Zuco and Vignola[32] prepared an alkaloid from various parts of "cannabis indica and cannabis sativa," but neither alkaloid possessed the characteristic action of cannabis compounds. Physiologically they were cardiac depressants, the alkaloid from cannabis indica being much the most powerful. The most recent investigators, Wood, Spivey, and Easterfield[33] (1896), failed to obtain any alkaloid from charas, and the bulk of evidence is therefore against the view that the effects of cannabis are due to an alkaloidal principle. In 1887 Jahns[34] obtained a crystalline base which he subsequently recognised as choline. He pointed out that chemically this body would explain the alkaloidal base obtained by previous observers, but it differs in crystalline form and solubility in ether from Hay's tetano-cannabine; physiologically, also, their action is different.

Of the more recent investigators Warden and Waddell[35] seem to have commenced upon the right lines. They argued that "as many of those addicted to the haschish form of intemperance obtain the intoxicating effects by smoking the plant in a pipe, it is to be expected that destructive distillation of the freshly prepared resin might yield up the active principle." They therefore made an alcoholic extract of the plant, added excess of caustic potash, and distilled. An amber-coloured oil came over, which, by exposure to the air or by the action of alkalies, rapidly assumed a dark brown colour. The oil contained ammonia, phenol, and other products of destructive distillation, and was "devoid of narcotic and irritant properties." One drachm administered to a cat produced no sensible effect. Leib Lapin[36] (1894) isolated a substance which he termed *cannabindon*, and which appears to possess the physiological action of fresh cannabis preparations. This he obtained by warming the plant with milk of lime and extracting with ether. The ethereal extract he treated successively with acetic ether, alcohol, petroleum ether (twice), and water, the precipitate being rejected each time. The second and third fraction obtained by precipitating with water contained impure cannabindon; this he subsequently purified. Last year, Cowan Lees[37] expressed a belief that watery extracts contained some active ingredient of cannabis. He describes good effects from the use of such preparations, but I am not aware that any scientific explanation has yet been given of them.

The most important results of recent years are those of Wood, Spivey, and Easterfield.[38] Working with charas they isolated from an ethereal[39] extract—(1) a terpene, boiling-point from 160° to 180° C., yield 1·5 per cent.; (2) a sesqui-terpene, boiling-point from 258° to 259° C., yield 2 per cent.; (3) a paraffin ($C_{20}H_{60}$?), melting-point from 63° to 64° C., yield 0·15 per cent.; and (4) a toxic red oil or resin ($C_{18}H_{24}O_2$), boiling at 265° C. under a pressure of 20 m.m. Hg., yield 33 per cent. As we should expect from its method of preparation the resin is extremely stable. It yields mono-acetyl and mono-benzoyl derivatives and is unacted upon by alcoholic potash, and, below 150° C. by hydriodic acid and phosphorus. It is insoluble in water, but soluble in alcohol, ether, benzene, and organic solvents generally. It appears to be the active constituent of the drug, and the authors have succeeded in isolating it from several cannabis preparations in the market—viz., from Smith's cannabine, 80 per cent.; Merck's cannabinon, 50 per cent.; Merck's ethereal extract, 26 per cent.; and Merck's cannabis resin, 20 per cent. As the compound contains at least one hydroxyl group the authors recommend the name *cannabinol* for it. Further investigations are being made upon its constitution, but as yet no further communication has been made.

As previously mentioned, all samples of charas are not of the same quality. From a second sample of this substance, undoubtedly inferior to the first, Easterfield and Wood were only able to extract 15 per cent. cannabinol.[40] Another sample of charas sent to me by my friend, Surgeon-Lieutenant John Stephenson, I.M.S., and obtained in the cantonments at Peshawar, was of intermediate quality. Various other preparations of cannabis indica (Merck's, Bombelon's, Denzel's, Gastinelli's, &c.) are known, and even largely used, but as these have not added much to our knowledge of the chemistry of this body I shall not mention them further. By oxidising cannabis resin with nitric acid Bolas and Francis[41] (1868) obtained a crystalline substance oxy-cannabine ($C_{20}H_{30}N_2O_7$), but the physiological action of this compound was not determined. Flückiger[42] failed to obtain it.

Personal experiments.—The substances isolated by Wood, Spivey, and Easterfield were passed on to me for pharmacological investigation. Owing to the pressure of other work this investigation is not yet finished but as soon as time permits it is hoped to complete it and give a full account of the pharmacology of this drug. The present experiments are of a purely personal character and are merely to establish the activity of cannabinol and introduce it into therapeutics. The experiments themselves I intend to comment upon at some future time.

I was under the impression that I had taken a small dose of impure cannabinol some time previously without any effect, when, on the afternoon of Feb. 19th last, whilst engaged in putting up an apparatus for the distillation of zinc ethyl, I took from 0·1 to 0·15 gramme (from 1½ to 2 grains) of the pure substance from the end of a glass rod. It was about 2.30 P.M. The substance very gradually dissolved in my mouth: it possessed a peculiar pungent, aromatic, and slightly bitter taste, and seemed after some time to produce slight anæsthesia of the mucous membranes covering the tongue and fauces. I forgot all about it and went on with my work. Soon after the zinc ethyl had commenced to distil — about 3.15 — I suddenly felt a peculiar dryness in the mouth apparently due to an increased viscidity of the saliva. This was quickly followed by paræsthesia and weakness in the legs, and this, in turn, by diminution in mental power and a tendency to wander aimlessly about the room. I now became unable to fix my attention on anything and I had the most irresistible desire to laugh. Everything seemed so ridiculously funny; even circumstances of a serious nature were productive of mirth. When told that a connexion was broken and that air[43] was getting into the apparatus and an explosion feared I sat upon the stool and laughed incessantly for several minutes. Even now I remember how my cheeks ached. Shortly afterwards I managed to collect myself sufficiently to aid in the experiment, but I soon lapsed again into my former state. This alternating sobriety and risibility occurred again and again, but the lucid intervals gradually grew shorter and I soon fell under the full influence of the drug. I was now in a condition of acute intoxication, my speech was slurring, and my gait ataxic. I was free from all sense of care and worry and consequently felt extremely happy. When reclining in a chair I was happy beyond description, and afterwards I was told that I constantly exclaimed, "This is lovely!" But I do not remember having any hallucinations: the happiness seemed rather to result from an absence of all external irritation. Fits of laughter still occurred; the muscles of my face being sometimes drawn to an almost painful degree. The most peculiar effect was a complete loss of time relation: time seemed to have no existence: I appeared to be living in a present without a future or a past. I was constantly taking out my watch thinking hours must have passed and only a few minutes had elapsed. This, I believe, was due to a complete loss of memory for recent events. Thus, if I walked out of the room I should return immediately, having completely forgotten that I had been there before. If I closed my eyes I

[30] Fischer, B.: Die Neueren Arzneimittel, dritte Auflage, p. 222, footnote.

[31] American Journal of Pharmacy, 1891, p. 386.

[32] Gazzetta Chimica Italiana, xxv., i., p. 262; Abstracted in the Journal of the Chemical Society, vol. lxviii., i., p. 631.

[33] Transactions of the Chemical Society, vol. lxix., p. 541.

[34] Archiv der Pharmacie, 1887, p. 479; quoted in Dymock, Warden, and Hooper's "Pharmacographia Indica," vol. iii., p. 338; also Pharmaceutical Journal [3], vol. xvii., p. 1043.

[35] Pharmaceutical Journal [3], vol. xv., p. 575.

[36] Loc. cit.

[37] Brit. Med. Jour., 1896, vol. i., p. 300.

[38] Loc. cit.

[39] Alcoholic and petroleum-ether extract also (Easterfield and Wood), Proceedings of the Cambridge Philosophical Society, vol. ix., p. 144.

[40] Private communication. Macnamara (1872) determined the amount of resin in various samples of ganjá—Dr. Prain's report on the Cultivation and Uses of Indian Hemp to the Indian Government. Abstracted in the Imperial Institute Journal, March, 1896.

[41] Transactions of the Chemical Society, vol. xxii., p. 417 (1869).—Chemical News, vol. xxiv., p. 77.

[42] Pharmacographia (1874), p. 434.

[43] Zinc ethyl takes fire on contact with air and consequently must be distilled in an atmosphere of carbon dioxide.

forgot my surroundings and on one occasion I asked a friend standing near how he was several times within a minute. Between times I had merely closed my eyes and forgotten his existence. Another peculiar effect was the occurrence of lucid intervals. They seemed to come on suddenly, sometimes but not always as if the result of an effort of the will. They lasted a variable time, being shorter when the symptoms of intoxication were most marked. In them I could converse in a fairly rational manner and even direct the work of the laboratory to a certain extent. But even in my sanest moments I was deficient in will power. I offered no resistance to being pulled out of the chair and made to walk the laboratory floor, and when asked if a medical man might be sent for I objected, but had no power to say "No." At one time, although walking rapidly, I felt cold and had to adjourn to an adjoining room where a fire was burning. I stood before it and thought how strange things were. I had a hazy notion of having been rational once and I wondered if ever I should be rational again. I was devoid of feeling, fearless of death, and even insensible to the feeling of others: if the friend by my side had died I think I should have laughed. About 5 o'clock a medical man was sent for. I had now been rational for nearly half an hour, but as soon as he appeared I again fell into an acute delirium and performed the same antics I had performed before. I knew I was acting foolishly, but I could not help it. Gradually I became calmer and then I told him what I had done. I could not have been devoid of reasoning power, for when he suggested an emetic I argued that it would do little good, as most of the substance must have been absorbed; I was too happy to be disturbed in that way. I told him I was getting better, but soon afterwards I again lost control. At 6 o'clock I had two cups of coffee and then feeling somewhat better walked home. The street seemed longer than usual and its lamps almost interminable, but although I had looked across the quadrangle previously this was the only illusion of distance that I noticed. The fresh air and exertion revived me. I ate a good dinner, afterwards read a little, and retired to bed at 11 o'clock without having experienced any symptoms of sleepiness. I quickly fell asleep and woke at 7 A.M. My memory had not quite returned to normal, but otherwise I was quite well. At 11.30 slight tenesmus and relaxation of the bowels occurred.

Although these notes were written immediately after the experiment many things which happened are not recorded; of many of them I have not the slightest recollection. I am told that early in the intoxication I drank water frequently, even out of my hand, but I have no remembrance of it. During the action of the cannabinol my pulse rose from 60 to 90 per minute, sensibility as determined by pinching was blunted, and my appearance was described as "ashy pale." The pupils were dilated somewhat, but throughout reacted to light and accommodation. At no time do I remember having had hallucinations; no unpleasant after-effects were experienced, and the drug appears to possess no constipating action.

About three weeks after the last experiment 0·05 gramme (¾ grain) of cannabinol was taken (2.35 P.M.). No effect was felt for four hours; then symptoms similar to those I have described, but less severe, occurred. First, there was dryness, or rather sliminess, of the mouth and a peculiar taste. This was soon followed by weakness in the legs and intoxication. After dinner (7 P.M.) I sat in an easy chair and closed my eyes. A dreamy state supervened and visions of a grotesque character appeared. A regiment of soldiers was seen marching: their movements gradually increased to running, their legs went faster and faster, until finally the whole regiment was lost in a number of rapidly revolving circles. Then visions of ugly boys were seen; from slight ugliness greater ugliness developed, and this increased so as to become ridiculous. Similar hallucinations occurred in a friend. Accompanying—probably preceding—this dreamy state was a pleasurable tingling all over the body, sometimes and in some places (the cheeks especially) becoming almost painful. Time seemed long, but it did not pass with the same rapidity as on the former occasion, or rather I did not experience the same forgetfulness; external relations were more connected. Gradually I grew sleepier, and it was with difficulty that I kept my eyes open. I did not succeed in sleeping in a chair, and at 9 retired to bed. Sleep did not follow for some time and I awoke at 6 A.M. As before, slight relaxation of the bowels occurred. Much smaller doses (0·01 gramme, about ⅛ grain) produced no sensible effect.

A few months afterwards a non-medical friend complained of sleeplessness and at my request took 0·05 gramme (¾ grain) cannabinol made into a pill with starch. He afterwards supplied me with the following account: "The pill was taken at 10.30, just before retiring for the night. I probably dozed a little at first, but I remember hearing the clock chime 11.30 and later 11.45. Almost immediately afterwards I began to see strange sights, which passed so rapidly that I had no time to examine them in detail. One that I remember was a bow-legged boy running with a chest of tea between his legs; another seemed like a procession of females in the distance, but on closer examination turned out to be coffins; these quickly melted away, leaving nothing but confusion. The clock struck 12, then 12.15 I remember nothing further until I awoke refreshed at 8 A.M. from a sound slumber." Cannabinol has been used in a few other cases as a hypnotic and with success, but at present I do not wish to enter into its uses as a medicine or even to recommend it as a therapeutic remedy. Considerable experience is always needed to establish the usefulness of any medicine, and this I have not yet been able to obtain. All that is claimed for this substance is that it is active—as active as any preparation yet made—and pure. Whether it will change by keeping or not time alone can tell. Perhaps when greater leisure enables me to complete the pharmacology of the drug I may be able to speak more definitely upon this point.

Of the other constituents of charas the terpenes are the most important. These have no peculiar action; they act as terpenes and in doses of 0·5 gramme (from 7 to 8 minims) are apparently without effect. It is possible that the good effects obtained by some physicians (Silver, McConnell, Bond, Edwards, &c.) in cases of menorrhagia, dysentery, &c., may be partly due to these constituents, but of this I hope to speak later. In conclusion, I express my thanks to Mr. Wood, Mr. Spivey, and Mr. Easterfield for the material with which they supplied me; to my friend, Mr. Stephenson, for samples of cannabis; and to Mr. Heath for notes of his observations during the time I was under the influence of the drug.

Cambridge.

[41] In the case of the Brothers Smith they were contracted (Pharmaceutical Journal, vol. vi., p. 173).

ON CERTAIN APPARENTLY ORGANIC TUMOURS OF THE ORBIT WHICH DISAPPEAR UNDER MEDICINAL TREATMENT.[1]

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I HAVE for a long time been familiar with the clinical fact that internal medication can in certain instances bring about the disappearance of orbital tumours. This is true, moreover, of tumours which exhibit features rendering differentiation from those of a malignant or certainly organic nature difficult, and but for the effects of treatment the distinction would perhaps be impossible without an examination of their minute structure. Just now I am thinking particularly of orbital growths occurring at about the middle period of life, when those of a malignant nature would be prone to arise. I propose to relate recent instances illustrative of this contention.

Panas of Paris, at the annual meeting in London of the British Medical Association in 1895,[2] brought forward a very valuable and instructive paper dealing with pseudo-malignant tumours of the orbit. He expressed the opinion that because dispersion of these growths followed the administration of iodide of potassium it was a mistake to regard syphilis as the only cause, and he believed that a "number of neoplasms thought to be lymphomas, sarcomas, or syphilomas ought to be attributed to the dyscrasia produced by some toxin." He spoke of a class of infectious tumours, the syphilitic being an example but not the only one. We are of course all familiar with the frequent impossibility of getting a specific history even in

[1] Read before the Sheffield Medico-Chirurgical Society, Oct. 22nd, 1896.

[2] Brit. Med. Jour., vol. ii. 1895, p. 955.

cases which admit of little doubt of syphilitic taint. My experience in a fairly large number of instances of syphilis acquired in an innocent, non-venereal manner has impressed me with the fact that it is much more possible for an individual to become syphilised without being aware of the nature of the affection than might be supposed. But Panas' observations are, nevertheless, of interest as he recounts instances which have undergone apparent cure with treatment by arsenic and other remedies which can hardly be regarded as anti-syphilitic.

CASE 1.—A short time since I recorded[3] the case of a middle-aged man who was admitted under my care into the Sheffield General Infirmary with what was regarded as inflammatory enlargement of the right lacrymal gland of several weeks' duration. It formed a very noticeable tumour at the outer and upper part of the orbit, rendering the eye somewhat prominent and materially interfering with the movements of the eyelid, which was also somewhat œdematous. The tumour continued to enlarge in spite of the administration of iodide of potassium—in fact, the commencement of the use of this drug was characterised by a somewhat rapid increase in size of the enlarged gland. Later, however, it became more stationary, and after the patient had been in the infirmary for some weeks my surgical colleagues, whose opinion I sought, were disposed to regard the growth as a sarcoma and suggested early removal. Before taking this course, however, as the man was anxious to return to his home he was allowed to do so on his promising to report himself after a short interval. This he did in a few weeks' time. The tumour had then become considerably lessened in size. No treatment had been adopted since his leaving the infirmary. A fortnight later he was again admitted. The edge of the tumour was all that could then be felt. In the course of the next few weeks the whole of the growth had disappeared and the eye had resumed its normal characteristics. There was no history of mumps or any general disorder with which to associate the enlargement of the gland. The only explanation offered was one by the man himself, who attributed the disorder to the fact that as an agriculturist he had been using sheep dip made particularly strong with sublimate, but there was no evidence of any wounds or abrasions on the hands, nor had there been salivation or implication of salivary glands or other symptoms suggestive of poisoning.

The case just related, much as it appeared at one time like a malignant tumour was in all probability only an instance of chronic inflammatory enlargement of the lacrymal gland. The cases to be now mentioned are more pertinent to the object of this paper.

CASE 2.—A woman, aged forty years, was sent to me on Nov. 20th, 1895, by Mr. Tristan of Retford owing to a prominence of the left eyeball due, he feared, to a tumour of the orbit. The prominence of the globe was first noticed about three months before and had recently become rapidly worse. For a considerable period prior to this she had suffered a great deal from headache confined to the left side. Treatment had, however, rendered this much less. On examination I found that the left eyeball was distinctly pressed forward, but that there was no marked interference with the movements of the globe. The upper eyelid was somewhat reddened and a trifle œdematous. A tumour was readily found at the outer part of the orbit; it was detected by the finger running also into the orbit above the globe, but the part where it was chiefly situated was on the floor of the cavity extending to the inner side. Here it was distinctly felt projecting as a rounded, somewhat hard, growth over the edge of the orbit. It was also slightly tender to the touch. The tumour was thus an extensive one, but the ophthalmoscope gave no evidence of interference with the intra-ocular circulation. Vision was unimpaired and there were no indications of parts adjacent to the orbit being affected. The patient had been married for twenty-three years. A son, aged twenty-one years, was living. Inquiry afforded neither myself nor Mr. Tristan any other suspicion of specific history than that many years ago she had had miscarriages, the last being ten years previously. The opinion expressed to her medical attendant was that she had an extensive tumour in the orbit that it would probably require removal, and to get rid of it entirely it would be necessary to remove also the globe. But notwithstanding the absence of a specific history (which I may say he confirmed) I mentioned that I had seen so many growths disappear under iodide of potassium that I should be disposed to give her a course of that drug before resorting to surgical measures. Mr. Tristan adopted this suggestion. On Dec. 15th he wrote that "the tumour has subsided in a marvellous manner," and this dispersion had continued when she paid me a visit on the 24th. At this date I found that the proptosis had nearly gone and that there was apparently little difference between the two eyes, but along the lower border of the orbit the edge of the tumour could be just felt much reduced in size but still a trifle tender to the touch. Starting with a dose of five grains of the iodide she had for some time been taking sixty grains daily. On Feb. 11th, 1896, she paid me another visit. At this time there was nothing to notice in the appearance of the eye as different from the other. The finger passed along the lower and inner wall of the orbit could no longer detect any tumour.

About the same time that the previous patient first came under observation, another woman, somewhat older, appeared among my patients at the infirmary. She had a tumour in the right orbit, displacing the eyeball forwards, but it was not more extensive than that in Case 2. It involved the inner and lower part of the orbit. The onset had been more gradual and it was of longer duration than in Case 2 and was associated with some pain. It would be about as correct to assume a specific taint in one as in the other, and yet in this patient the iodide, tried for a time, exerted no influence, and it was deemed necessary to remove the growth, a proceeding to do which effectually involved the sacrifice of the globe. The tumour proved to be a sarcoma growing from the inner and lower part of the orbital wall.

CASE 3.—In October, 1894, I had under treatment at the infirmary a man, aged forty-two years, who for several weeks before coming to me had noticed that the left upper lid was slightly swollen, and latterly he had suffered somewhat from aching pain. He had a good family and personal history and denied any venereal taint. In addition to the somewhat swollen condition of the eyelid already mentioned the left eyeball was more prominent than its fellow. The finger carried between the globe and the upper wall of the orbit taught that the space was filled up by some large growth which was firm feeling and somewhat nodular. The movement of the globe upwards was also interfered with and the eyelid drooped, and he was able to raise it very imperfectly. During the short time he attended among my out-patients his condition became rather aggravated. At this period he was shown at the Sheffield Medical Society. The presence of a tumour was recognised and its possibly malignant character was discussed by several members who saw the patient. He was admitted into the infirmary and at once placed upon iodide of potassium. A steady improvement commenced which continued until the tumour had become completely absorbed, the appearance of the two eyes being similar and evidence of the former trouble being altogether removed.

The cases mentioned bear a very close clinical resemblance to tumours regarded as sarcomatous and in which the diagnosis has been confirmed by the microscope after the growth has been removed. There was the same evidence to the touch of a somewhat hard, elastic tumour, not fluctuating or pulsating, and somewhat nodular on the surface as an organic tumour would present. Treatment proved that they could be dispersed without operation, and therefore it appears to me that the lesson to learn is one that Panas enforced in the paper to which I have already directed attention—viz., that before resorting to surgical measures for orbital tumours the effects of internal treatment should be tried. It is not necessary that iodide of potassium with or without mercurial inunction should be employed, for Panas mentions the benefit derived from arsenic and other remedies. Panas also suggests that serum, according to the nature of the infection which has been at work, should be used.

The simplest way of accounting for the presence of such tumours as I have referred to is, of course, to presume that they are syphilomas and very naturally to discount the absence of specific histories. If we are to believe that, as a consequence of dispersion following the administration of the iodide, the nature of the tumour has been proved nothing more, of course, can be said. I confess, however, that my feeling is that such tumours as have been referred to in this short communication are not necessarily syphilitic, and the observations of Panas as to unilateral and bilateral orbital growths afford strong support to such a contention.

Sheffield.

[3] International Clinics, vol. i., p. 236, 1894.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A NOTE ON DECOMPOSITION OF CHLOROFORM, AND SICKNESS.

BY DAVID NEWMAN, M.D.,
SURGEON TO THE GLASGOW ROYAL INFIRMARY;
AND
WILLIAM RAMSAY, PH. D., F.R.S.

EARLY in the history of chloroform it was noticed that the agent had a tendency to undergo spontaneous decomposition on exposure to air and light, and although within recent years great care has been taken by manufacturers of the drug to produce as pure an article as possible, nevertheless, the fact remains that chloroform is not stable and rapidly deteriorates as an anæsthetic. When freshly distilled chloroform is administered, the vapour is easily inhaled, having a sweetish and not unpleasant taste and odour. It produces little or no irritation in the air passages, little excitement of the patient is observed, and if the agent is carefully given sickness, fainting, and irregularity of the pulse and respiration seldom occur during its administration. But if chloroform is kept in a bottle containing air, exposed even to feeble light, changes are produced in the drug which render it less suitable as an anæsthetic. The change is due to the formation of carbonyl chloride and hydrogen chloride, according to the equation $CHCl_3 + O = HCl + COCl_2$. These substances render the vapour slightly pungent in odour, and on inhalation it produces irritation in the air passages. The period of excitement of the patient is more marked and the liability to sickness during and after anæsthesia is greater.

During the last six months the effects of freshly distilled chloroform and of chloroform supplied in the ordinary way have been contrasted, greatly to the advantage of the former. It has been found, however, that distillation is not necessary, as by shaking the chloroform with slaked lime and filtering the irritating products of decomposition are eliminated, as, indeed, theory would predict; for the hydrochloric acid is, of course, at once acted on by the lime, giving calcium chloride and water, and the carbonyl chloride, to the presence of which the sickness is probably to be ascribed, is resolved into carbonate and chloride of calcium, thus—$COCl_2 + Ca(OH)_2 = CaCO_3 + CaCl_2$. In illustration the three following cases may be mentioned:—

CASE 1.—A man was operated on three occasions. For the two first the chloroform given had been in the wards for not more than ten days, and was kept in a well-stoppered bottle away from direct light; but the bottle contained some air. Each operation lasted fully an hour, and on both occasions the pulse became very irregular and feeble so as to necessitate artificial respiration. While recovering from the effect of the chloroform he was very sick, and the sickness continued for two days after the first operation, and for three days after the second. The third operation lasted for one and a half hours. Chloroform which had been kept with slaked lime in it and filtered before use was employed. The patient, although much feebler through disease, remained well during the operation, and there was no sickness for twelve hours, when he suddenly became sick, but this passed off in a short time.

CASE 2.—A woman had been under chloroform four times and she was invariably very sick while coming out and afterwards, the sickness lasting for twenty-four hours or more. When chloroform treated with lime was used, on coming out of the anæsthetic sickness occurred for a few minutes only.

CASE 3.—A man was under chloroform four times. On the first and third chloroform as supplied by the druggist was used, and it was not more than twelve days old. After both operations there was severe sickness, lasting for thirty-six hours. On the second and fourth administrations freshly distilled chloroform was employed with no sickness resulting.

As a matter of experience it was found that freshly prepared chloroform is more reliable as an anæsthetic, and is less likely to produce sickness during or after administration, and the risks of anæsthesia are probably increased by the decomposition of chloroform when kept for any considerable time exposed to air and light. Even with fresh, chloroform sickness may occur if the patient is allowed to come out during the operation, but the quantity of acrid mucus is very small in amount as compared with what is seen when older chloroform is given. Perfectly pure chloroform is said to be a much less stable body than chloroform containing alcohol. As an instance of the instability of pure chloroform it may be mentioned that a sample left in a half-full stoppered bottle from July till October, 1896, smelt as pungent as hydrochloric acid, gave with baryta water a copious precipitate of carbonate, and was absolutely irrespirable.

Glasgow.

UNUSUAL CASE OF CARCINOMA OF THE BREAST.

BY W. S. CRAWFORD, B.A. CANTAB., F.R.C.S. EDIN.,
SENIOR ASSISTANT SURGEON, LIVERPOOL CANCER AND SKIN HOSPITAL.

IN the beginning of September, 1892, a fresh-complexioned, thin woman, aged thirty-one years, came under my care at the Liverpool Cancer and Skin Hospital. She was unmarried. Some months before admission the patient had received a blow on the right breast which caused her a good deal of pain for some time. She did not notice any swelling. Three months after receiving the blow she found a lump in her right breast about the size of a marble, situated above and to the outer side of the nipple; it was freely moveable and quite free from pain. On the patient's admission to hospital, some four months later, the lump had attained the size of a tennis ball. It was very hard and adherent to the skin. The nipple was retracted. The axillary glands were hard and enlarged. It was a well-marked scirrhus of the breast. The breast was removed and the axilla cleared. The sections were found to be hard, spheroidal-celled carcinoma. On Nov. 25th, 1896 (four years later), the patient again presented herself at the hospital. Her general appearance was but little changed. She gave a history of having wrenched her right arm and hurt her right breast eight months before. There was no lump of any kind then. The present local condition is as follows. There is a large oval-shaped tumour distending the skin, which is ulcerated in a circular patch two inches in diameter over the most prominent part of the growth. The ulcerated area is concave; it bleeds readily on the slightest interference. Towards the axilla a flattened portion of growth is felt extending from the main mass and firmly adherent to the pectoral muscles, but not certainly to the bony wall of the chest. About two inches lower down than the main mass there is a small area somewhat discoloured about the size of a penny, intensely hard, and two or three small nodules in the immediate neighbourhood, evidently recurrences in the superficial lymphatics. The right armpit is clear, but the left contains a mass of enlarged and undoubtedly cancerous glands. The main recurrence commenced, according to the patient's description, immediately above the old cicatrix. It now involves the scar and the tissues on each side.

Remarks.—Her father's sister died from carcinoma of the breast which followed an injury. The patient's primary growth, as well as recurrence, followed definite injuries. In so young a patient it was pleasing to find so long an immunity period—three and a half years.

Liverpool.

NOTE ON A CASE OF RUPTURE OF THE HEART.

BY CECIL ROBERTSON, M.B., C.M. ABERD.

CASES of rupture of the heart from external violence without penetration of the chest are by no means of frequent occurrence. Erichsen, in the last edition of his "Science and Art of Surgery," says that Gamgee was only able to collect twenty-two published cases. In the majority of these cases the blow was directly over the cardiac region. For two reasons I think the following case is not unworthy of being recorded—(1) the small number of recorded cases; and (2) that the heart in this case was ruptured by indirect violence.

An apparently healthy man aged forty-nine years opened the door of a railway carriage just as the train commenced to move and fell somewhat heavily on his left shoulder. On being asked by the officials if he had hurt himself he replied "No" and proceeded some two or three hundred yards from the station to his work, where he died within three-quarters of an hour of his falling from the train. On post-mortem examination I found the pericardium intact but distended with a mass of blood-clot and fluid blood. In front of the left auricle was a laceration one and a quarter inches long through which a piece of clot protruded. The wall at the seat of the laceration was considerably thinned; both ventricles were very much hypertrophied, the whole organ weighing 22 ozs. Beyond a slight abrasion over the right knee there was no external evidence of any injury, and there is little doubt that the cause of the rupture was the violent impact of the left shoulder on the platform.

Southfields, S.W.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

RADCLIFFE INFIRMARY, OXFORD.

A CASE OF SUPPOSED PASSAGE OF THE STOMACH THROUGH A RENT IN THE DIAPHRAGM INTO THE PLEURAL CAVITY, THE RESULT OF AN INJURY; RECOVERY.

(Under the care of Mr. A. WINKFIELD.)

ESCAPE of the contents of the abdomen into the pleural cavity in consequence of injury of the diaphragm is a very rare condition, the symptoms produced by such escape being well exemplified by the careful report of this case. Such hernia (as it is, perhaps, wrongly called) is usually without any proper sac, although it may push some partially-ruptured pleura in front of it, and is nearly always on the left side. The injury to the diaphragm may be caused by a stab which has penetrated the chest wall, as in cases recorded by von Horock[1] and Pestempski,[2] the latter of whom successfully sutured the opening in the diaphragm after returning the protrusion, the wound of the chest wall having been enlarged; or more commonly a rupture of the muscular tissue is caused by a buffer accident, and the protrusion into the chest follows immediately. That such injury is not by any means immediately fatal, though producing profound disturbance at the time and troublesome symptoms later, is shown by the cases of Jacobsen[3] and Farwell.[4] Both patients ultimately died from intestinal obstruction the direct result of strangulation, but this did not take place until eighteen and sixteen years afterwards. Both Nauman[5] and O'Dwyer[6] have operated unsuccessfully for diaphragmatic hernia; the former was unable to replace the escaped contents of the abdomen after operation from the abdomen in consequence of adhesions; the latter, who opened the chest expecting to find an empyema, resected parts of the ninth and tenth ribs, reduced the hernia, and sutured the opening, but the boy, aged three and a half years, died six hours later.

A boy, aged five years, was admitted into the Radcliffe Infirmary under the care of Mr. Winkfield with the history that he had fallen with a heavy iron gate upon him. He was collapsed and cyanotic, and some brandy-and-water was administered by the mouth. The left side of the chest was almost motionless and was tympanitic in resonance; it was at first supposed to be pneumothorax, but an exploring needle passed in the fifth left interspace posteriorly drew off brandy-and-water instead of air, as was expected. There were some bruising and tenderness on the lower part of the right side of the thorax; the breathing on that side was loud and exaggerated; the left side moved but little in respiration. At the apex there were dulness and tubular breathing; below the left apex there were tympanitic resonance and distant metallic tinkling. Posteriorly there was some slight dulness with distant breath sounds. The heart dulness was obliterated; its sounds were most distinct above the sixth interspace on the right of the sternum, where its beat could be felt. Upon giving him liquids to swallow distant metallic sounds could be heard in the left half of the chest. For some three days after admission he was in a state of collapse, he could not sit up, there was marked dyspnœa, and upon any slight exertion he became cyanotic. After a few days he began to improve generally, but the condition of the chest remained the same; he complained of severe pain in his left leg and at the back of the knee, but no injury could be felt in that region, and the hip upon examination was evidently free from injury or disease. He had lost flesh a good deal, but was now (Oct. 6th) able to get about without much dyspnœa, and he took food without pain; the physical signs of the condition of the chest remained much as before. There has been no material rise of temperature throughout the case.

Remarks by Mr. WINKFIELD.—The patient was lately shown before the Oxford Medical Society, when several gentlemen present examined him and agreed that the above diagnosis was probably the correct one. I mentioned two cases which I had previously met with. One was that of a blacksmith who over-reached himself when striking a blow with a heavy hammer, and was brought to the infirmary suffering from severe pain in the upper part of the abdomen. After lying quietly in bed for a few days he was suddenly seized with vomiting and became collapsed and died. Upon post-mortem examination there was found a rent in the left side of the diaphragm; the stomach, spleen, and portion of the large intestine had passed through the rent into the pleural cavity. The second case was that of a boy who had been squeezed between the buffers of railway waggons. He was admitted soon after the last case. His aspect and condition were so like those of the last patient that attention was called to them. Upon examination a very similar condition to that of the boy whose case is related above was found. The patient remained in the infirmary for some weeks and then, leaving the hospital, he was lost sight of.

[1] Sajous: Annual of the Universal Medical Sciences, 1888, vol. ii., p. 135.
[2] Ibid., 1890, vol. iii., C. 50.
[3] Ibid., 1894, vol. iii., C. 58.
[4] THE LANCET, June 30th, 1888, p. 1294.
[5] Sajous, loc. cit., 1889, vol. iii., B. 62.
[6] Ibid., 1894, vol. iii., C. 59.

NORFOLK AND NORWICH HOSPITAL.

A CASE OF DEATH FROM HÆMORRHAGE FOLLOWING OPERATION FOR TONGUE-TIE; NECROPSY.

(Under the care of Mr. S. H. BURTON.)

FOR the notes of the case we are indebted to Mr. Hamilton A. Ballance, house surgeon.

A male child was born after a natural delivery at 5 P.M. on Dec. 21st, 1896. The mother was attended by a midwife temporarily employed by the Lying-in Charity of Norwich, though she had not obtained its certificate. About an hour after the birth the midwife said that the child was tongue-tied, and using a sharp-pointed pair of scissors she proceeded to liberate it. She did not notice bleeding at the time of the operation, but on the evening of the same day blood was observed by the friends to be issuing from the child's mouth. At noon the next day (the 22nd) as the bleeding continued the father went to the midwife's house and fetched her to the case. The woman told the parents that the child was all right and that there was no need to be frightened. On this day the child passed dark blood by the bowel. The hæmorrhage did not cease and the midwife was, therefore, again fetched on the evening of the following day. She then washed the mouth and the face of the child with warm water. The father requested that a medical man should be called in, but the midwife said that it was unnecessary and that if she was to blame she would take the responsibility. Eventually, however, she took the child herself to a medical man, who, after examining him and giving directions to the friends as to treatment, recommended that he should be taken to Mr. Burton. Mr. Burton found arterial bleeding going on in the anterior part

of the floor of the mouth and placed two ligatures on the bleeding points. He then sent the child to the Norfolk and Norwich Hospital, where he was admitted at 10 P.M. on the 23rd. On admission the child was pale and weak and the pulse was rapid and feeble. He was small, weighing only five pounds. On examination there was seen to be a cut in the floor of the mouth under the tip of the tongue between one-half and three-quarters of an inch long, and extending from just to the right of the middle line away to the left, along the junction of the tongue and the floor of the mouth and exposing the muscular substance of the tongue. The bleeding seemed to have stopped from the time of the application of the ligatures. The child was put to bed, but died rather suddenly in the early hours of the next morning (the 24th). While in the hospital he passed some dark blood by the bowel, having apparently swallowed the blood as it exuded from the wound in the mouth.

Necropsy.—Post mortem all the organs were found to be healthy, though extremely anæmic. In the stomach and intestines throughout almost the whole of their length there was much dark semi-fluid blood. A ligature was seen on the left ranine vein, but whether this vessel or the artery was the source of the major portion of the blood lost was not made out.

Remarks by Mr. BALLANCE.—The above case may be of interest to medical men owing to the prominence of the midwives question at the present time. An inquest was held and the jury returned a verdict of "Death from misadventure." They also recommended that in future a medical man should be consulted should this operation be thought necessary, and considered that the midwife was deserving of censure for undertaking it. At the inquiry the woman stated that she had frequently performed the operation before, always using sharp-pointed scissors, and that this was the first accident she had encountered.

BRADFORD GENERAL INFIRMARY.

A CASE OF PANCREATIC CYST ASSOCIATED WITH GLYCOSURIA AND GALL-STONES; NECROPSY.

(Under the care of Mr. HORROCKS.)

THE change which has taken place in our estimation of the surgical importance of the pancreas is well shown by a reference to earlier editions of surgical text-books. In France, for instance, in his work on surgery (1877) Tillaux states: "Of all the viscera contained in the abdominal cavity that of least interest to the surgeon is the pancreas, owing to its deep situation." The whole subject was dismissed in a few lines. In a new edition (1888) its importance was considered to justify a whole chapter. In this country one of our text-books[1] (1888) devotes a paragraph to the subject of cysts of the pancreas, and speaks somewhat uncertainly especially as regards treatment. In the last edition (1895) this subject is considered at some length and the treatment clearly laid down. The teaching is less certain as regards the causation of the cysts: "When they are traumatic in origin it seems probable that laceration of the gland with hæmorrhage occurs and that this is followed by escape of the secretion from the torn ducts. In the cases in which there is no evidence of injury it has been suggested that a retention cyst forms as the results of some obstruction of the duct." The account of the post-mortem examination in this case makes it possible that the gall-stone which was found in the common duct was an important factor in the causation of the cyst of the pancreas, and the observation is therefore one of considerable interest. For the notes of this case we are indebted to Dr. Bruce Buchanan Morton, resident dispensary surgeon.

The patient, a man aged fifty-six years, was admitted to the Bradford General Infirmary on Nov. 19th, 1896, suffering from pain of varying intensity in the region of the stomach, with nausea, occasional vomiting, a constant sense of "heaviness" and languor of three months' duration, and a tumour first noticed two months previously in the upper part of the abdomen. Since his illness began he had been a little jaundiced and related the passage of several small greenish stones. He also said that he had lost flesh steadily but had had no injury and could assign no cause to account for his condition. On examination the patient was found to be wasted; his skin was sallow and dry, the conjunctivæ were slightly yellow, and his breath emitted a sweetish odour. The thoracic and abdominal examinations disclosed, as irregularities, a distant sound of the heart at the site of maximum impulse, an encroachment of the stomach note on to the left pulmonary areas, and the presence of a tumour mostly occupying the left epigastric and hypochrondriac regions. It was of the size of a fœtal head presumably, firm, unmoved by respiration, but vibrating with aortic pulsations. Percussion over the tumour gave a dull note continuous with the left hepatic dulness, but it was elsewhere surrounded by a tympanitic note. The urine was pigmented, of specific gravity 1025, and contained casts, epithelial and hyaline; also albumin and sugar—a quantity of the latter. The patient looked ill. His pulse was 140. On the 20th three ounces of greenish-brown turbid fluid were removed from the tumour by aspiration. The fluid was alkaline, albuminous, contained no bile, pigments or sugar, and emulsified oil. Its specific gravity was 1009. All treatment proved unavailing and the patient sank and died at 4 A.M. on Nov. 21st.

Necropsy.—Post mortem a large cyst with walls of tough fibrous consistence (one-fifth of an inch thick) and a potential capacity of about two pints was discovered in the lesser peritoneal cavity, with adhesions to the stomach and to the concavity of the spleen, and occupying the site of the normal pancreas. It had a smooth, pale inner surface with shallow sacculations, some of which and the floor of the cyst were occupied by a green, tough, loose substance of a colour like that of boiled spinach. On the exterior of the cyst no normal pancreas could be found and the duct of Wirsung could not be entered by a probe. At the duodenal end of the cyst, however, a stone the size of a pigeon's egg was felt to be loosely impacted in the contiguous common bile-duct and could only be removed by an incision into the gall-bladder, which was filled with a loosely-packed mass of gall-stones, some of which occupied the common duct. The intestines contained no gall-stones, the kidneys to the naked eye appeared normal, and other organs as well. The microscopical examination of a section of the cyst wall by Dr. H. B Gladstone showed clearly glandular remains here and there in dense fibrous tissue.

Remarks by Dr. MORTON.—Whether repeated passages of gall-stones causing chronic incomplete obstruction of the intestinal common orifice of the bile and pancreatic ducts can be the cause of the cyst formation, or the gall-stone formation be simply secondary to a cyst of the pancreas (from any other cause), or whether the cyst and gall-stones are unrelated I cannot pretend to adjudicate. No pancreatic stone was found. I am indebted to Mr. Horrocks for permission to publish this case and to Dr. Chapman for his assistance in the physical and chemical examinations.

[1] Erichsen: Science and Art of Surgery.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Non-calcifying Plastic Osteitis.—Report on a Museum Specimen of Malignant Enchondroma of the Testicle.—Exhibition of Specimens.

A MEETING of this society was held on Jan. 19th, Mr. BUTLIN, the President, being in the chair.

Mr. BERNARD PITTS and Mr. S. G. SHATTOCK gave a detailed account of a very unusual case, for which they ventured to propose the name of Non-calcifying Plastic Osteitis. A thin and careworn woman, aged thirty-nine years, was admitted to St. Thomas's Hospital wearing an apparatus for a deformity of the right leg. She could only walk with difficulty and great pain. At the age of thirty-one years she had a fall and struck her right leg. Three months later the knee became stiff and painful; two years later, after a confinement, the knee became much worse. She had since been a patient at several hospitals. On examination the leg was found to be very wasted and flexed at the knee almost to a right angle. There was an apparent displacement backwards of the tibia and fibula. The upper third of the tibia was exceedingly tender, and distinct mobility was detected at what appeared to be the junction of the epiphysis and shaft; this movement was

without crepitus, but attended with great pain. The knee-jerks of the left leg were greatly increased, but no rigidity or ankle clonus was present. On account of the pain and discomfort amputation was performed in November, 1895. The patient recovered, and at the present time is in fairly good health. No other bones of the body were diseased. The upper half of the tibia had undergone a uniform transformation into a minutely cancellous, bone-like substance, so devoid of earthy salts that the bone itself was as pliable as indiarubber. Precisely similar tissue completely filled the medullary cavity. Microscopic sections were cut quite readily without artificial decalcification. They were stained with carmine and hæmatoxylin. The trabeculæ, which took the carmine stain like bone decalcified artificially, were surrounded with a definite layer of osteoblasts, the amount of re-absorption by osteoclasts being quite insignificant compared with that of new production. The spaces between the trabeculæ were everywhere occupied by a highly cellular connective tissue, which contained but few leucocytes. The sections of the nerves in the periosteum exhibited a perfectly normal structure. In the gross the anatomical result was like that presented by the calvaria in osteitis deformans before sclerosis had supervened, but differed in the absence of calcification. The tissue most closely resembled the uncalcified osteoid tissue seen in rickets around the shafts or upon the flat bones. Rickets in this case was excluded by reason of the clinical differences, the strict localisation of the disease to the upper half of the bone, the filling of the medullary cavity with the osteoid tissue, &c. Mr. Pitts and Mr. Shattock regarded the condition as an osteitis in the sense in which any chronic osteoplastic process could be called inflammatory. Following Virchow's teaching, Recklinghausen, in his recent monograph on fibrous or deforming osteitis, had adopted the view which took osteomalacia to be an inflammatory lesion. In this disease, however, the amount of bone-production was conspicuous by its absence; the osteitis was almost completely aplastic; moreover, the decalcification and metaplasia of the decalcifying bone into fibrous tissue seen in osteomalacia were absent in the specimen under consideration. Recklinghausen had adopted the term osteitis fibrosa as a synonym for osteitis deformans for the reason that in certain cases an obvious amount of fibrous tissue may be met with in the bones, but in none had want of calcification been observed; moreover, there was no fibrous formation in the present specimen. The cases of frontal leontiasis recorded by Mr. Horsley exhibited an inter-trabecular formation of fibrous tissue, but the bone, again, was not uncalcified and the operations for its removal were conducted by means of the trephine and saw. Mr. Pitts and Mr. Shattock, in conclusion, found it impossible to class the specimen under the heading either of osteomalacia or osteitis deformans. The lesion was an osteitis occurring in the adult of a pronounced plastic character, but unaccompanied with calcification of the new osseous tissue, and in all this was so remarkable that they had proposed the term "non-calcifying plastic osteitis," thinking that its etiology might prove to be different from that underlying other better known and commoner anatomical conditions.—Dr. KANTHACK did not think that the possibility of new growth had been satisfactorily excluded. He had found an osteoblastic layer similar to that described almost always present in the new bone of osteoid sarcomas, and here also calcareous salts were often absent. He had seen cases of sarcoma of bone, with secondary growths elsewhere, having macroscopic and microscopic appearances just like those in this case. The long history was against the theory of the change being due to a growth, but it was possible that secondary growths might yet occur.—Mr. SPENCER suggested that possibly it might be a case of new growth arising from the white cells of marrow—"myeloma" or lymph-adenoma of bone. Several of these cases recorded had occurred as single tumours, and had lasted as long as in the present case without giving rise to secondary growths, and in several an injury appeared to have been the exciting cause.—The PRESIDENT hoped that Mr. Pitts and Mr. Shattock would place their case under the heading osteitis deformans. He thought that the specimen illustrated a stage in that disease at which the bones were plastic and the deformity took place. The tumour origin of osteitis deformans had been suggested some years ago by Dr. Goodhart and others, but unless secondary growths should occur there was no evidence for regarding this specimen as a tumour.—Mr. PITTS, in reply, said he did not believe there was a growth. The name was provisional. He regarded the condition as most closely allied to osteitis deformans.—Mr. SHATTOCK also thought there was no evidence of growth. This case differed from the other conditions which had been mentioned, the softness being due here, not to decalcification of pre-existing bone, but to new formation of uncalcified bone.

Dr. KANTHACK and Mr. T. STRANGEWAYS PIGG gave the result of their recent examination of a Specimen in the Museum of St. Bartholomew's Hospital which was described forty years ago by Sir James Paget as one of Enchondroma of the Testicle. The specimens showed to the naked eye a cartilaginous looking tumour of the testis, with growth extending along the spermatic cord and the pampiniform plexus and extending into the inferior vena cava, where there was a mass of new growth projecting into the lumen. Sir James Paget found numerous secondary cartilaginous growths in the lungs, and an intra-vascular growth in a branch of the pulmonary artery. The lymphatic glands were not enlarged. Mr. Butlin in his work on Sarcoma had thrown doubt on whether this were a case of enchondroma. The result of the examination by Dr. Kanthack and Mr. Pigg left no doubt in their minds that this was a columnar celled carcinoma in which metaplasia of the fibrous tissue into cartilage had taken place, this chondrification being in places so extensive as quite to mask the carcinomatous nature of the tumour. The tumour had extended by the veins and not, as originally described, by the lymphatics. Sections through the pampiniform plexus showed that the lumen of the veins was filled by a fibrous stroma containing alveoli lined by columnar epithelium. There were also (as in other cases of carcinoma of the testis recently described by Dr. Kanthack and Mr. Pigg) masses of squamous-looking epithelium with concentrically arranged cell nests. The fibrous stroma contained much cartilage, usually in round masses, but in places showing gradual transition from fibrous tissue. In some parts the tissue was loose and almost myxomatous in character. In the testis cartilage was predominant, but the existence of columnar epithelium in alveoli could be traced. The occurrence of cartilage in carcinomata and their secondary deposits had been described by Virchow and figured by Ziegler. It illustrated the importance of the stroma as well as the epithelial elements of a malignant growth. Dr. Kanthack and Mr. Pigg referred to the remarkable acumen and accuracy displayed by Sir James Paget in his original description notwithstanding the imperfections of histological technique at his disposal.—The PRESIDENT thought the main point was the malignancy of the tumour. He had been led to doubt its innocence both from the naked-eye appearance of the tumour and from Sir James Paget's description, but had not till now seen sections. He agreed that it was a carcinoma.—Dr. SNOW considered that from the variety of tissues present the specimen should be regarded as a "blastoma" arising from fœtal residua.—Mr. BOWLBY thought the demonstration clearly showed the tumour to be a carcinoma with chondrification of the matrix. The absence of involvement of the lymphatic glands was exceptional. The existence of columnar cells was noted by Sir J. Paget; but, probably owing to the imperfect histological methods of the day, their arrangement and significance had escaped him.

The following card specimens were shown:—

Mr. PERCY PATON: (1) Fracture of the Radius and Ulna at the Epiphysis; and (2) Prævertebral Abscess.

Dr. TURNEY: Intra-pericardial Aortic Aneurysm communicating with the Superior Vena Cava.

HUNTERIAN SOCIETY.

Exhibition of Specimens.

AN ordinary pathological meeting of this society was held on Jan. 13th, the President, Dr. G. E. HERMAN, being in the chair.

Mr. T. H. OPENSHAW showed a Solid Ovarian Tumour—a small-celled sarcoma—removed from a woman who had been confined ten days before admission to hospital. Dr. Herman examined the patient and diagnosed a sarcomatous tumour. There was a large amount of ascitic fluid in the abdomen. The uterine cavity was three and a half inches in length. The interesting points of the case were: (1) the size of the tumour—7½ lb.; (2) its solidity; and (3) the pedicle was twisted.—Dr. HERMAN spoke on the question of recurrence of sarcomatous tumours of the ovary and said that it was by no means certain—Mr. TARGETT alluded to the fact that

fibroma of the uterus was sometimes associated with ascites.—Dr. F. J. SMITH alluded to two cases of sarcoma of the omentum, one with much ascites which simulated extra-uterine pregnancy, and the second a solid growth with but little ascites.

Mr. OPENSHAW then brought before the society the leg and foot of a boy aged fifteen years. At the age of seven years he had Acute Periostitis of the Lower Half of the Tibia. In the specimen part of the shaft of the tibia had not been reproduced, while the fibula had continued to grow. The inferior tibio-fibular articulation was very loose and, owing to the absence of part of the shaft of the tibia, he could twist the foot in any direction.—Mr. TUBBY, in speaking to Mr. Openshaw's point on the propriety of waiting before removing the dead bone, thought that it was better to remove the sequestrum early and to maintain the cavity of the periosteum by stuffing it with gauze.—Mr. TARGETT alluded to some cases of congenital absence of the tibia simulating the condition seen in Mr. Openshaw's case.

Mr. TARGETT presented two specimens of Malignant Growth of the Uterus: one of villous character and the second a columnar-celled carcinoma.—Dr. HERMAN remarked that it was unusual for a uterus with malignant growth of the body to be of such size as the specimen Mr. Targett had described. Dr. Herman thought that in cancer of the body of the uterus the microscope by itself was not always trustworthy from a diagnostic point of view.

Dr. J. H. SEQUEIRA showed a specimen of Secondary Carcinoma of the Spleen, the primary growth being in the uterus.—Dr. HERMAN remarked that cases of cancer of the body of the uterus do not frequently (10 per cent.) give rise to secondary growths in distant organs.—Dr. F. J. SMITH remarked upon the comparative infrequency of secondary splenic growths.

Dr. SEQUEIRA also exhibited the Head of a Femur from a case of Rheumatoid Arthritis in a man aged fifty-six years. In this instance the ligamentum teres had entirely disappeared and there was lipping of the femoral head and acetabulum.—Dr. SMITH asked if the ligamentum teres were ever congenitally absent, and Mr. OPENSHAW remarked its absence in congenital dislocation of the hip.

Dr. F. J. SMITH brought forward a specimen of large White Kidney from a boy, aged fifteen years, who had been ill for only three weeks. The interest of the specimen lay in the fact that it was in opposition to the generally received teaching of the essentially chronic nature of large white kidney. The case was also of interest from a life insurance point of view, as a life might be accepted and then develop renal symptoms shortly afterwards and a large white kidney be found post mortem.—Dr. ARTHUR DAVIES spoke on the points of cyclical albuminuria and life assurance.—Dr. HERMAN said that he was much interested in the discussion, as it was closely connected with puerperal eclampsia.

Dr. SMITH also showed the Lungs and Trachea from a boy aged nine years who was brought into the London Hospital dyspnœic and moribund. Tracheotomy was performed unsuccessfully. At the necropsy an aneurysm of the descending aorta was found.

BRITISH GYNÆCOLOGICAL SOCIETY.

Annual Meeting.—Election of Officers.—Presentation of Reports.—President's Address.—Exhibition of Specimens.—Pan-Hysterectomy after Clamp Operation.

THE annual meeting of this society was held on Jan. 14th, Dr. CLEMENT GODSON, President, being in the chair.

The ballot was taken for the election of officers for the ensuing year, and the following were elected:—Honorary President: Dr. R. Barnes. President: Professor A. W. Mayo Robson. Vice-Presidents: Dr. G. G. Bantock, Dr. C. H. Bennett, Professor J. W. Byers, Dr. A. E. Cordes (Geneva), Dr. G. Elder, Dr. H. Macnaughton Jones, Dr. Leith Napier (Adelaide), Professor W. L. Reid, Dr. C. H. F. Routh, Dr. F. F. Schacht, Dr. W. Travers, and Professor Hector Treub (Amsterdam). Treasurer: Dr. J. A. Mansell Moullin. Council: Mr. W. Armstrong, Dr. Dudley W. Buxton, Mr. T. Kilner Clarke, Mr. E. Tenison Collins, Mr. W. Dingley, Dr. A. Donald, Dr. F. Edge, Dr. C. Godson, Dr. F. N. Haultain, Dr. W. Balls Headley (Melbourne), Dr. P. L. Hebert, Mr. R. A. Hodgson, Mr. F. Bowreman Jessett, Mr. Skene Keith, Dr. Henry Lewis, Dr. R. Marsden Low, Dr. J. J. Macan, Mr. Christopher Martin, Dr. James Oliver, Mr. H. W. F. Powell, Dr. T. Savage, Professor A. J. Smith, Dr. D. Thomson, and Dr. W. S. Wyman. Editor of Journal: Dr. F. F. Schacht. Hon. Secretaries: Dr. John Shaw and Dr. George E. Keith.

The Treasurer and the Editor of the Journal presented their reports.

The PRESIDENT then delivered his Valedictory Address, which will be found in full on p. 221.

Mr. JESSETT moved, and Mr. J. W. TAYLOR seconded, that a hearty vote of thanks be given to the retiring President for his excellent address, and that he be asked to allow it to be printed in the Journal of the society.

Dr. H. M. MACNAUGHTON JONES showed for Dr. MACNAUGHTON-JONES a Microscopic Section of a Specimen of Deciduoma Malignum.

Dr. F. A. PURCELL showed a new form of Intestinal Clamp for Compressing a Colotomy Spur.

Mr. J. W. TAYLOR (Birmingham) read a communication on Two Cases of Pan-Hysterectomy after Previous Treatment by the Clamp Operation, and showed the specimens.—Mr. BOWREMAN JESSETT congratulated Mr. Taylor on his successful results and the society on the fact that for three or four years it had insisted that total extirpation was the best treatment for uterine myomata. By using the clamp, one or more myomata might be left behind and need a second operation, as in Mr. Taylor's second case. Kelly's operation was new to him, and this was the first time that it had been brought before the society. Probably the method adopted by Mr. Taylor was the only one that could have been used in that particular case. They had to thank Mr. Taylor for bringing these cases before them; they could not see too many of such specimens, and it was well to have a variety of methods available to choose from.—Dr. HEYWOOD SMITH said that from the description Kelly's method seemed easy, but it appeared to him doubtful whether it could be used in the case of a large tumour blocking up the pelvis, as it would be difficult to tilt the cervix sufficiently to get at it.—Mr. J. F. JORDAN (Birmingham) had had the good fortune to assist Mr. Taylor in his case of Doyen's operation. He had not himself used this method. In the three cases of hysterectomy which he had performed he had used Mr. Jessett's method with successful results. Speaking as one of the younger gynæcologists he thought they were fortunate in that the battle as to the best method of dealing with uterine myomata had been nearly fought out. To him complete extirpation seemed the best treatment. Of course they had to consider the mortality of each procedure; and so far it would seem that the mortality after total extirpation was not greater than that of other methods, but would rather prove to be less. The drawback of Doyen's method was that it did not appear to be available for cases of myomata blocking up the pelvis; but he was still in doubt as to the manner in which such cases should be dealt with.—Dr. F. A. PURCELL observed that Mr. Taylor's communication was an extension of the discussion on hysterectomy which they had had at the last meeting. For his part, he did not yet feel bold enough to strip the sides of a myoma and leave the vessels untied till after they had been secured by an assistant. An allusion had been made to large tumours blocking up the pelvis; in such a case he had adopted the method of separating the broad ligament on each side, slicing the tumour across, then dissecting the remaining portion out of the broad ligaments, and so completing the total extirpation.—Dr. BEDFORD FENWICK asked for information on two practical points: (1) the time occupied by each operation, and (2) the time required for separation of the ligatures. The society was to be congratulated on these cases; there was no doubt that they must come ultimately to adopt an intra-peritoneal method and they were fast advancing in this direction.—Mr. TAYLOR, in reply, said that such operations as he had described must necessarily take some time, varying from a little under one hour to one and a half hours. A careful study of the specimen removed by Kelly's method would answer the questions that might be raised about it. The size of a tumour in the pelvis was necessarily limited by the size of the pelvis itself, and if one side remained healthy and accessible the size of the remainder would probably not matter much. The worst cases they had to deal with were such as Mr. Jordan had referred to, where the pelvis was blocked on both sides; in such a case Doyen's method might be useful. It was also especially applicable to those cases in which the connexions between growth and bladder could not be properly attacked from above.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Specimens and Cases.—Asthma and Hay Fever of Nasal Origin.—Undescended Testicle.

A MEETING of this society was held on Jan. 12th, the President, Mr. G. CARTER, being in the chair.

Dr. EURICH showed a series of sections illustrating the Development of the various tracts of the Spinal Cord and Medulla Oblongata. He pointed out that on section of the cord degeneration of tracts occurred in the order of development.

Dr. A. BRONNER showed a case of Internal Strabismus and advocated advancement of the external rectus, combined with tenotomy of the internal rectus, as opposed to simple tenotomy, in treatment of these cases.—Dr. Bronner also showed cases of Iritis, Glaucoma, and of Interstitial Keratitis, and remarked on the complete recovery which took place, under treatment, of cases of the latter affection due to syphilis.

Dr. A. BRONNER then read a paper on Cases of Asthma and Hay Fever of Nasal Origin. He pointed out that the symptoms might be: (1) a direct result of nasal obstruction; (2) the result of irritation of the endings of the fifth nerve by polypus, by atrophy or hypertrophy of the nasal mucous membrane, by foreign bodies, or by necrosis of the bones of the nose; (3) the outcome of a central neurosis, in which cases the application of the cautery gave relief by acting as a counter-irritant. Dr. Bronner gave details of several inveterate cases of asthma and hay fever cured by treatment directed to the nasal cavity. He advocated examination of the nose in all such cases and the removal of any abnormal condition if present.

Dr. JOHNSTONE CAMPBELL showed the Stomach from a case of Diffuse Cancer of that organ which had invaded the head of the Pancreas. The stomach presented great contraction of its cavity. The symptoms during life were rapid wasting, constipation, and vomiting coming on after a few mouthfuls of food had been swallowed. There was no glycosuria.

Dr. C. W. CHAPMAN showed a case of Perforated Ulcer of the Duodenum causing death after only thirty-six hours' illness. There was no history of previous attacks and the patient had gone to his work up to the time of the fatal seizure.—Dr. Chapman also showed a case of Peripheral Neuritis affecting the legs, which was said to be the result of bandaging the limbs in the treatment of severe secondary hæmorrhage from an operation wound. There was no history of syphilis or of alcoholic excess.

Dr. CAREW WEBB showed a case of Peripheral Neuritis coming on after chorea, which latter affection had been treated with arsenic. The patient was a girl eight years old. Eight months previously she had been treated with arsenic for one month and had obtained relief. Three months ago the chorea recurred. Six minims of liquor arsenicalis were given three times a day, and this was increased in the course of ten days to twelve and a half minims thrice daily. After three weeks she was discharged well as to the chorea. She returned in a week unable to walk alone. She had wrist-drop and foot-drop, with loss of sensation over the median nerve area. The knee-jerks with superficial and deep reflexes were absent. No symptoms of arsenical intoxication were present except a slight attack of vomiting lasting one day. There had been slight improvement under treatment.—Dr. GOYDER suggested a rheumatic origin for the neuritis.—Dr. KERR, Dr. JOHNSON, and Dr. MITCHELL discussed the case.

Mr. WILLIAM HORROCKS read a paper on Undescended Testicle. Among the causes mentioned were: (1) intra-uterine peritonitis giving rise to adhesions between the testicle and the cæcum or small intestine; (2) contraction of the external abdominal ring owing to over-development of the transverse fibres; (3) incomplete development of the inguinal canal; (4) absence of the gubernaculum testis; (5) excessive action of the cremaster, due to reflex irritation (phimosis, &c.); (6) undue shortness of the vas deferens or of the vessels of the cord; and (7) long mesorchium, allowing the testicle to wander freely in the abdominal cavity. He mentioned in connexion with the first cause that adhesions to the cæcum may not prevent descent of the testicle, but that the cæcum may descend with the testicle and give rise to a hernia with an imperfect peritoneal covering. With regard to the functional activity of an undescended testicle, it was shown that it was not necessarily sterile, as Curling asserted, but that its action depended less on its position than on its freedom from inflammatory attacks following injuries. The complications of undescended testicle were: (1) inflammation, especially in the inguinal position; (2) special liability to malignant disease, more particularly in testicles lying in the inguinal canal; and (3) hernia, the bowel being sometimes adherent to the testis. Treatment by truss was deprecated as worse than useless owing to the difficulty of getting downward pressure, while at the same time injurious pressure was exerted on the testicle and on the vessels of the cord. Treatment by transplantation and by daily downward manipulation was said to be useless. Operation by drawing down and suturing the testicle to the scrotum, obliterating the processus vaginalis, and suturing the ring was not successful when the cord was too short, being followed either by re-ascent of the testicle or by its atrophy. Dissection of the globus minor from the testicle in order to give greater length to the cord was tried in one case, but the testicle atrophied. Assuming the testicle to be not liable in any given case to attacks of inflammation it was recommended that no operation be performed before the age of thirteen years, as up to that age there was a prospect of the testicle descending normally. In the meantime phimosis or any condition liable to cause reflex action of the cremaster might be dealt with. A hernia co-existing with the undescended testis must be dealt with on ordinary lines, the liability of the presence of the cæcum with an imperfect covering being borne in mind.—Dr. ALTHORP pointed out the intimate relations in position between the cæcum and testis during development.—Dr. LODGE mentioned a case of cryptorchism in which there was perfect functional activity of the testicle.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases and Specimens.—Agraphia and the Question of the Existence of a Special Graphic Centre in the Cerebrum.

A MEETING of this society was held on Jan. 13th, the President, Dr. ARGYLL ROBERTSON, being in the chair.

Dr. AFFLECK showed a young woman who had been admitted to the infirmary with symptoms of Cerebral Gumma. There was a clear history of syphilis. The third nerve was the first to be affected, after which followed the fourth and sixth nerves. Under treatment the affection of these various nerves had passed off, so that after about two months' treatment there was only a little paresis left.

Dr. MILES showed a man whose Tongue he had removed for Malignant Disease. He had gained much room by the removal of two teeth and the incision for removal of enlarged glands under the jaw was taken advantage of for ligaturing the lingual arteries and thus preventing hæmorrhage. He also showed a boy on whom he had operated by Kocher's method with considerable success for Double Equino-varus.

Dr. MACGILLIVRAY showed a Calculus removed by Nephrotomy from the pelvis of the left Kidney, and the patient from whom it had been removed. He also showed a Kidney from a successful case of Nephrectomy; the kidney was cystic and collapsed, the result of a calculus which lay in the ureter at its junction with the pelvis.

Dr. WILLIAM ELDER then read a paper on Agraphia and the Question of the Existence of a Special Graphic Centre in the Cerebrum. He set himself to inquire whether there was a type of asphasia which could be called graphic aphasia. He referred to the four great types of aphasia—auditory, visual, motor, and conduction. He also referred to Wernicke's sub-divisions of sub-cortical, cortical, and trans-cortical, and that there might be three sub-divisions of any of the first three main groups. He then indicated the graphic symptoms in each variety of aphasia: in the auditory form there was paragraphia and also agraphia to dictation, but the patient was usually able to copy. In visual aphasia the patient can write voluntarily and to dictation, but there were disturbances of copying power. In motor aphasia when subcortical there is no disturbance of writing, when cortical there is loss of voluntary writing and also writing to dictation. In conduction-aphasia there is power of writing voluntarily and to dictation, but there is paragraphia. He

then examined the question of whether there was evidence to show that there have been cases of agraphia other than those due to lesions of the speech centres and the fibres connected with them, and concluded that no conclusive evidence existed as to the existence of a separate graphic centre. Not satisfied with this he took up the consideration of the question from a theoretical study of writing. He argued that in writing the word-seeing centre guided the hand movements, but while this was so he thought the memories of the fine movements and peculiar shapes were stored in a special centre, and that the fine movements required in many expert manipulations were thus stored. Such a centre was not necessarily a large one for it stored only the graphic image of letters, not of words; the words being combined by means of the psycho-motor speech centres and the auditory word centre. The power of forming letters by the left hand he held was different altogether from the expert writing of the right hand, and if the left hand were guided by the centre in the left hemisphere the writing would be "mirror-writing." He had examined a number of adults and children and found that a certain proportion of them when asked to write with the left hand did it in "mirror" fashion. He gave details of an interesting case of motor aphasia with agraphia in which the former was recovered from while the agraphia was persistent. — In the discussion on this paper Dr. BYROM BRAMWELL argued against the existence of a special graphic centre.—Dr. IRELAND considered that there was too great a desire to sub-divide the cerebral cortex when the function of the cortex as a whole ought to be more regarded.—Dr. CLOUSTON thought a presumption had been established for a special centre, but that if writing had a special centre other movements must also have centres.—Dr. MACPHERSON questioned the practical value of localising such a centre even if it existed.

EDINBURGH OBSTETRICAL SOCIETY.

Exhibition of Specimens.—Hæmorrhage from Rupture through a Mucous Cyst.—Retention of the Menstrual Fluid.—Extra-uterine Gestation.

A MEETING of this society was held on Jan. 14th, Professor SIMPSON, Vice-President, being in the chair.

Dr. J. A. C. KYNOCH (Dundee) showed a Tumour of the Right Kidney which he had removed by abdominal nephrectomy from an infant sixteen months old. The tumour was about the size of a large lemon and grew from the posterior part of the kidney. All that remained of the kidney substance was a small portion on the summit and another part spread as a capsule over the tumour. The tumour microscopically was found to be adenomatous, consisting of alveoli lined by columnar epithelium with a large amount of fibrous tissue. The child is now (six weeks after operation) quite recovered and well.

Professor SIMPSON exhibited an Anencephalic Fœtus with Spina Bifida which had ruptured during intra-uterine life. He also exhibited a Fœtus showing so-called Fœtal Ascites, with lymph deposit on the surface of the liver and pleural effusion. He also showed a Colloid Tumour of the Ovary, the cysts being very small with thin walls; one had burst into the peritoneum before removal; the other ovary was the seat of a similar tumour of small size.

Dr. KEPPIE PATERSON showed a Genealogical Table tracing the occurrence of twins to the male progenitors. In a family of three generations there were nine confinements, and six of these were twin births; one member had twins with both his first and second wife. The table was from Professor Winckel's clinic in Munich.

Dr. R. C. BUIST (Dundee) read a paper on a case of Hæmorrhage from Rupture through a Mucous Cyst. The patient was eighty-one years old and had suffered from complete prolapse of the uterus for many years. Serious hæmorrhage had occurred, and when examined blood was found oozing from the inner side of an irregular protuberance 1 c.m. high close to the os uteri. On grasping it with forceps the mass came away, leaving a base from which blood oozed freely. The bleeding was controlled by a couple of silkworm gut sutures. The case was evidently one where the passive congestion due to the prolapse had produced hæmorrhage into a mucous cyst and secondary external hæmorrhage from rupture of the cyst wall.

Dr. LAMOND LACKIE read a paper on Retention of Menstrual Fluid in one half of a Double Uterus, and recorded a case in which menstruation occurred normally from one half of a uterus septus, while an intermittent hæmatometra recurred in the other. The patient was twenty-four years of age, unmarried, and had menstruated regularly since the age of sixteen years, but she complained of a pain in the right side and of a hæmorrhagic discharge which came on every four months and continued for three weeks. The pain in the side was relieved for a time by the flow, but gradually came on again and increased till it was again relieved after four months by the discharge. Further, she said that every month between two menstrual periods she suffered from an acute exacerbation of pain and felt as if she were about to menstruate, but there was no external sign of this. On examination there was felt a marked bulging in the right fornix and a distinct, well-defined tumour in the hypogastric and right iliac regions. The patient said that she had always observed a swelling in the right side before a hæmorrhage came on, and stated that it disappeared when the flow was established. She was kept under observation for some time, and ultimately the tumour was aspirated per vaginam in order to clear up the diagnosis. The fluid was found to be altered menstrual blood. Later, when the sac had once more filled up, an incision was made into it per vaginam and the cavity explored by a sound, when the diagnosis was easily confirmed. Bougies were then forced through the septum between the two halves at the level of the cervical canal, so as to establish free communication between both cavities. A drainage-tube was then inserted along the cervical canal and into the dilated half. The incision made through the lateral fornix was then stitched up. The patient's subsequent menstrual history was interesting; she menstruated every fortnight alternately from each half of the uterus. This was proved by the fact that every second time the fluid escaped entirely by the drainage-tube, which had been left protruding beyond the vulva. Dr. Lackie remarked that this alternate menstruation in some cases of double uterus had been observed by Emmet, Kussmaul, and others. The case was not one of "uterus bicornis," since clinically no sulcus could be felt between the two horns, but rather one of "uterus septus," in which one half had a very imperfect communication with the common cervical canal. It seemed to require considerable distension of the sac to force the small opening which must have existed, although at the time of operation it could not be discovered. Dr. Lackie then discussed the differential diagnosis, and in conclusion referred to the literature of the subject and appended a list of twenty-four cases to his paper. The mortality following the operation for relief of the condition was very high, being no less than 50 per cent.—Dr. HAULTAIN, Dr. BERRY HART, and others made remarks on the subject.

Dr. C. F. A. MOSS (Antananarivo) sent a paper on a case of Extra-uterine Gestation, which was communicated by Dr. BARBOUR. The patient was thirty-nine years of age and had been three times pregnant, the last ending in abortion fourteen years ago. The menstruation had been regular and normal till six months previously to her admission. The last flow was scanty and accompanied by much pain in the hypogastrium and rectum, so severe as to cause fainting. For four months she had little or no pain, but noticed an abdominal tumour, at first in the middle line, and afterwards passing over to the left side. From that time till her admission two months afterwards she suffered from attacks of pain, dysuria, and diarrhœa, with bloody stools. On examination a tumour was found occupying the lower abdominal region on the right side extending two inches above the umbilicus, rather lower on the left, and bulging into the flanks. Slight fœtal movements were felt and the fœtal heart could be heard. Per vaginam a bony mass could be felt bulging into the posterior vaginal wall close to the ostium vaginæ. The cervix was very high, and a mass resembling a slightly enlarged uterus was felt above the pubes. By the rectum the sagittal suture could be distinguished. There was difficulty in deciding between the diagnosis of an extra-uterine gestation or a retroverted gravid uterus. Three weeks after admission there was false labour with the passage of decidua, and she left hospital a fortnight later fairly strong and without pain. She afterwards returned complaining of intense abdominal pain and menorrhagia, and laparotomy was performed three months from the date of the false labour. The sac was found covered by peritoneum, there were slight

adhesions to the omentum, but none to the abdominal wall. The uterus was lying to the left and free from the sac. The sac was incised and its edges stitched to the parietal peritoneum. The right side of the sac was completely occupied by the placenta, which was dry and bloodless; the left side was occupied by a full time, but much shrivelled, female child. After extraction of the child the placenta was easily detached and removed. There was a rent in the posterior wall of the sac through which the bowel and omentum had prolapsed, the latter being adherent to the placenta. A small sac was found in the lower part of the large sac. The cavity was washed out, clots were removed, and a drainage tube was inserted. The patient made an excellent recovery. Dr. Moss has seen five other such cases in Antananarivo.

Dr. FREELAND BARBOUR read a paper on Laparotomy for a five months' Extra-uterine Gestation. The patient was thirty-two years of age and had one full-time child and two miscarriages subsequently. Early in the history of this pregnancy she had suffered from sudden attacks of nausea, pain, and vomiting. A tumour showed itself in the right iliac region and gradually increased in size. Fœtal movements were felt for about three weeks, but these ceased after an attack of giddiness, accompanied by vomiting, and followed afterwards by unconsciousness. A day or two after this a pale bloody discharge escaped from the vagina containing shreds like skin. She was confined to bed for some weeks and suffered from exacerbations of the pain, accompanied by vomiting. There was one other uterine discharge. On removal to hospital a large abdominal tumour was found, irregular in outline and reaching to within about one inch of the umbilicus; it was solid at some points and cystic at others. On operation the tumour was found to be covered by peritoneum, but lifted up in the right iliac fossa, while inferiorly it extended into the pelvis. The sac was stitched to the abdominal incision. On opening the sac firm, dry blood-clots were encountered, and from the lower part lumps of dry and bloodless placental tissue were removed. A mummified fœtus twelve and a half inches long was removed from the upper part of the sac with some difficulty; it was lying in a large diverticulum, which extended up into the right hypochondrium. The secondary sac seemed to be intra-peritoneal. The sac was washed out; there was a little bleeding, which was easily controlled. Both cavities were packed with iodoform gauze. The patient recovered satisfactorily. In discussing the question of the best time for operating it seemed to be generally accepted in the later months if the fœtus is dead to wait for a certain amount of atrophy of the placenta to take place; the question of interference in the interest of a living fœtus was still *sub lite*. There is also a difference of opinion with regard to the desirability of immediate operation in cases of rupture during the early months. Dr. Barbour referred to the literature of different cases operated on in the later months and discussed the risk of hæmorrhage from the placenta during operation, as well as the subject of stitching of the sac to the abdominal wall. Professor SIMPSON remarked that if it were possible it was better to see to the peritoneum of the abdominal wall and so diminish risk of peritoneal infection.—Dr. BERRY HART stated that the sac in the extra-uterine gestation was in part extra-peritoneal and with a peritoneal periphery; if the latter portion were opened into it was better to stitch to the abdominal walls, but if the peritoneum was not opened into it was not necessary. The sickness and vomiting occurring with the internal hæmorrhage were evidently due to the resulting cerebral anæmia. He had not experienced any trouble from hæmorrhage in operating on these cases, even if the placenta were cut into, as he had found plugging with iodoform gauze sufficient to control it; if there had been bleeding the tampon could be inserted and the placenta left to be dealt with at a subsequent operation a few days later.—Dr. HAULTAIN remarked that the question of stitching before opening into the sac was a question of diagnosis. If the child were alive and the placenta were opened into it might be difficult to control the hæmorrhage, and he instanced a case where the bleeding could only be controlled by pressure from the outside of the sac at its base; if the sac had been stitched to the abdominal wall at the beginning of the operation there would have been trouble and delay in dealing with the hæmorrhage.—Dr. BARBOUR, in reply, stated that in all advanced cases it was more likely that the sac would be opened through the peritoneum and not through the cellular tissue or extra-peritoneally

Reviews and Notices of Books.

An American Text-book of Applied Therapeutics, for the Use of Practitioners and Students. Edited by J. C. WILSON, M.D., assisted by A. ESHNER, M.D. London: The Rebman Publishing Company. 1896. Price 42*s*.

THIS handsome volume, which in the style of its production leaves little to be desired, forms an excellent example of the now prevalent practice of coöperative authorship. In a subject so vast as that of the treatment of disease it is certainly of advantage to enlist the services of many contributors if the work is to speak with authority and command respect. It is barely possible for a single pen to adequately compass the field or for a single physician, however able, to make himself acquainted with the extensive literature of the subject. The editor of the work before us has been fortunate in securing the services of many well-known American physicians to assist him in the task, together with two contributors from outside the American Continent. These are Professor Laveran, who writes on Malarial Fevers, and the late Dr. Beaven Rake, whose admirable and careful work on Leprosy is here supplemented by what was, we suppose, the last writing of a gifted and able observer. The work of editorial revision has evidently been carefully exercised, for there seems to be rather more uniformity of treatment of the subjects than mostly occurs in compendia of this description. In one respect, indeed, we are prejudiced enough to regard this exercise of editorial privilege with regret. It is that the editor has adopted the "new spelling," which is growing in fashion in American medical literature, but for which we are ourselves unable to assume any enthusiasm. The plan of the work is one which will commend itself to readers, for it takes them systematically through individual diseases and groups of diseases, instead of adopting the less attractive and often wearisome method of the ordinary therapeutic text-book.

Avoiding the discussion of general principles and hygiene, the book opens with articles upon the Treatment of Acute poisoning and on the Resuscitation of the Apparently Drowned, by Dr. J. E. Atkinson of Maryland. Next follows a contribution by Dr. Victor C. Vaughan of the University of Michigan upon the interesting topic of Food Infection. He gives a very good account of ptomaine poisoning, ergotism, and other forms of intoxication from the consumption of articles of diet. We would especially draw attention to the excellent description of the Opium Habit and Morphinism given by Dr. Carl Frese of Philadelphia, and we note his preference for the treatment of this vice by the "rapid gradual" method of Erlenmeyer to the more sudden withdrawal of the drug, which, if effectual, is only to be attempted with some risk. He expresses his opinion that these cases are best treated in institutions, but he does not speak very hopefully of permanent results being obtained. Other "drug habits" also receive notice. Alcoholism is dealt with by Dr. R. Eles who, we observe, considers that chloral and bromide of potassium are the most efficient sedatives in the treatment of delirium tremens. Passing to the infective diseases, the article on Diphtheria by Dr. W. Northrup may be cited as being fairly comprehensive and up-to-date. The impossibility of thorough disinfection of the tonsils and naso-pharynx by injections and sprays is frankly recognised, but useful hints are given as to the most effective means of carrying out in the child this essential, and not wholly ineffectual, line of treatment. In dealing with laryngeal diphtheria, much space is devoted to the subject of intubation, for which English practitioners will be grateful. Dr. Northrup considers that (in skilful hands) intubation is much to be preferred to tracheotomy, and it is doubtless with the view of gaining fuller recognition of its merits that

he has been careful to describe the method in detail, whereas but small space is given to tracheotomy. The question of antitoxin is regarded favourably and is mainly discussed in a notice of a report by Professor Welch. The Exanthemata are dealt with in a single article by Dr. G. Dock of Michigan; and it is interesting to observe how in these diseases the value of bathing is coming to be recognised and full justice being done to Dr. Currie of Liverpool, the pioneer in this line of treatment. This subject also receives extended notice at the hands of Dr. J. C. Wilson in his very excellent article on Enteric Fever. The efficacy of the routine treatment of this disease by bathing has been demonstrated to Dr. Wilson's satisfaction in the wards of the German Hospital at Philadelphia, where the practice has been in vogue since 1890. The studies of Professor Osler of Baltimore in the same direction are familiar to all, but we hardly think sufficient credit has been given by our American cousins to the work done in this subject in England ten or fifteen years ago. It was Dr. Cayley who in his Croonian Lectures before the Royal College of Physicians of London first demonstrated in this country the value of the treatment introduced by Brand, and subsequently adopted with much enthusiasm by Dr. Glenard of Lyons, after witnessing its results when a prisoner of war in Germany in 1870. Although much prominence is given to this treatment, Dr. Wilson covers the whole ground of the course and complications of enteric fever in a manner which is as attractive as it is scientific. He also writes on typhus fever, relapsing fever, and cerebro-spinal meningitis. To Dr. E. O. Shakespeare has been assigned the subject of Asiatic Cholera or "Cholera Infectiosa," as it is termed, and it is notable for the conviction he possesses of the efficacy of the methods of protective inoculation introduced by Ferran and the more recently accepted method of M. Haffkine. The following passage clearly expresses what the writer feels on this question:—

"The destructive severity of cholera epidemics in India is decidedly increasing. During the eight years from 1878 to 1885 inclusive there were in India upwards of 2,000,000 deaths from cholera; during the seven years from 1886 to 1892 inclusive there were in the same country upwards of 3,000,000 deaths from the same disease. This appalling increase of an already frightful mortality due to cholera furnishes the most positive proof that, whatever the official sanitarians connected with the Government of India may assert in international sanitary congresses and elsewhere in laudation of the prophylactic measures said to be enforced in India, at great expense, for the limitation of the movements of cholera there, they are utterly incapable of accomplishing the object. In view of the ineradicable influences of caste and antiquated, abominable domestic customs universally prevalent among the natives of India, one personally familiar with the nearly absolute lack of sanitation among the native populations of Hindostan must be visionary indeed if he can even dream of ever remotely approaching the effectual restriction of cholera epidemics in that country by means of the mode of general prophylaxis in vogue there in the past and at present."—P. 276.

And he goes on to say that he is convinced, from a study of the statistics of cholera in Spain in 1885, that the only feasible plan of restricting the disease is by preventive inoculation such as was practised by Ferran in the villages of that country, the insanitary surroundings of which vie in degree with those of India. In the actual treatment of an attack of cholera stress is laid upon the advantages of lavage of the stomach and the method of enteroclysis with solutions of tannin and opium as practised by Cantani; whilst in the stage of collapse the subcutaneous injection of salt-solution (hypodermoclysis) is recommended. There follow articles on Yellow Fever by Dr. J. Guitéras; on Anthrax, Hydrophobia, Glanders, and Tetanus by Dr. J. Chalmers Da Costa; and on Weil's Disease by Dr. A. Eshner. The subject of Croupous Pneumonia is treated by Dr. I. N. Danforth of Chicago, who, whilst recognising our powerlessness to control the course of the disease, yet shows to what extent relief may be afforded. He advises the practice of venesection in the early stage, provided that the subject is suitable for this procedure, and he deprecates the prescription of antipyretic drugs, but thinks cold affusion and sponging valuable. He does not, however, say much about the use of the ice-bag, and clearly regards all such measures of value only in the stage of hyperæmia, although to say that a considerable number of cases may be "arrested" in this stage strikes us as rather optimistic. He divides the rest of the treatment of the disease into that of the stage of consolidation, of the crisis, and of the period of resolution, and finally alludes to the antitoxin method of the Drs. Klemperer as not unlikely to constitute a great advance in the treatment of pneumonia.

The extensive and important subject of Tuberculosis is in the capable hands of Dr. J. T. Whitaker. This, the most formidable and ubiquitous of human infective disorders, has been the subject of numberless treatises and the object of many a vaunted panacea. The writer of the article has well succeeded in a task which must have involved much labour, and we could wish that space would permit of our presenting a summary of his essay. It must suffice to say that in pulmonary tuberculosis he regards creosote as the remedy which has most established itself, although it cannot be claimed to have any specific action, and as substitutes for it he describes the use of guaiacol, cinnamic acid, and other even less commonly prescribed drugs. Nor does he think that tuberculin should be wholly discarded, although he would limit its employment to incipient pulmonary cases and to glandular and osseous tuberculosis. Full details are given in systematic fashion of the symptomatic treatment of pulmonary tuberculosis, and there is a succinct account of the relative advantages of climatic resorts. The subject of Syphilis is discussed by Dr. Orville Horwitz and there is a somewhat elaborate article on Malarial Fevers by Professor Laveran, which is largely taken up with a minute analysis of the action of quinine and its congeners. Similarly, in dealing with Acute Rheumatism Dr. James Stewart enters fully, if less elaborately, into a discussion of the salicyl compounds, but admits that hitherto no satisfactory explanation of their *modus operandi* has been forthcoming. The value of cold bathing for treating the formidable complication of hyperpyrexia is insisted on, but it would have added to the interest of the subject had the writer discussed the prodromal symptoms which warn the physician of the onset of this condition. The treatment of chronic rheumatism is hardly sufficiently considered, and although it is, perhaps, pardonable to find no mention of the latest method—that of super-heated air—yet some place might have been found for a discussion of the dietetic measure—which certainly succeeds in some intractable cases—which goes by the name of the "Salisbury treatment." The same writer has articles on Gout, Rheumatoid Arthritis, and on Rickets, and we confess to some disappointment in the perusal of the last named, which affords scope for much wider treatment. No allusion is made to "scurvy rickets" either here or under the head of scurvy. Passing to the article upon Diseases of the Stomach, by Dr. C. G. Stockton, it may be said that the writer has endeavoured to treat the subject more scientifically than is the rule by considering first the functional disorders which are mostly grouped as "dyspepsia" under such heads as "hyperchloridia," "lactic-acid excess," "diminished acidity and anacidity," gastralgia, gastric hyperæsthesia, and other familiar symptomatic affections. It is impossible not to be conscious of the enterprise here shown; but as in practice the carrying out of this plan involves the constant use of direct testing of the gastric secretions it is difficult for the practitioner to pursue. In this regard, indeed, science has gone far beyond the capabilities of ordinary practice,

and it may even be questioned whether the results of the treatment of the great army of dyspeptics on these scientific principles has yielded more relief than is afforded by the old-fashioned, if blinder, ways. Nevertheless, any means whereby the therapeutist can attain greater certainty upon the condition which he endeavours to alleviate ought not to be lightly discarded even at the cost of some trouble to the practitioner and discomfort to the patient. And the treatment of "dyspepsia" has long been one of the stumbling-blocks of medicine. Diseases of the Intestine are discussed by Dr. W. W. Johnston, and Diseases of the Liver by Dr. W. C. Darney, whose account of the treatment of gall-stone calls for special commendation. We note that he is convinced of the value of large doses of olive oil as a means for procuring the passage of biliary calculi, and suggests that the mode of action is partly by increasing the flow of bile and partly by lubrication of the mouth of the ductus choledochus. The important subject of Infant Feeding as well as articles on the Digestive Disorders of Infancy and on Dentition are from the pen of Dr. E. Graham of Jeaffreson College, Philadelphia. Amongst the remaining articles we may note especially that on Diseases of the Pleura, by Dr. A. L. Mason of Harvard University. In this article the measures of treatment are preceded by a brief account of the symptoms of the diseases. The indications for paracentesis are discussed with discrimination, and the methods of operating in serous and purulent effusions succinctly described. Instructive illustrations of the conditions in pyo-pneumothorax and subphrenic abscess are given in the section dealing with the former. The articles on Diseases of the Heart, by Dr. F. Forchheimer, and those on Diseases of the Blood and Ductless Glands, by Dr. Osler, need no commendation—they are what may be expected from such eminent authorities. Dr. James Tyson writes on Diseases of the Kidneys, whilst there is a full account of the general subject of Treatment of Nervous and Mental Diseases by Dr. Eskridge. In this and other articles on the nervous system we miss any extended notice of electro-therapeutics. The volume contains, further, a chapter on Mental Diseases and closes with sections on Diseases of the Skin and on Pregnancy and its Disorders, the respective writers of these articles being Dr. J. M. Chapin, Dr. H. W. Stelwagen, and Dr. T. Parvin. We have thus indicated some of the contents of this bulky volume, sufficiently, it may be hoped, to convey to our readers some idea of its scope and quality. It must not be supposed that the sections not mentioned here are less worthy of notice than those that have been cited, for, taken as a whole, the work is one which fairly reflects modern science and practice. It is, therefore, a book which may prove of service to the practitioner and it certainly has the merit of not being too much overladen with theoretical considerations.

Nouveaux Éléments d'Ophtalmologie. Par H. TRUC et E. VALUDE. En deux volumes. *(New Elements of Ophthalmology.* By H. TRUC and E. VALUDE. In two volumes.) Paris: A. Maloine, 21, Place de l'Ecole de Médecine. 1896. Prix 20 francs. Tome i. pp. 604, Tome ii. pp. 713.

THIS work, though only professing to be an introduction to ophthalmology and intended for students, yet contains sketches and notices of many subjects that in more pretentious volumes are often passed over in silence. One of these, for example, is the history of ophthalmology, in which it is shown that considerable knowledge of the subject was possessed by the ancients. Herodotus, for example, mentions that Cyrus, King of the Persians, solicited the Egyptians to send him a celebrated oculist. Under the Ptolemies, the author tells us, the Alexandrian School was celebrated for its anatomical researches on the eye, though the burning of their magnificent library has prevented their works from descending to our time. The Greeks took up the subject, and some of the precepts as well as the practice of Hippocrates—as, for instance, the use of copper sulphate in conjunctival inflammation—still survive, whilst an altar was raised at Sparta to Minerva of the Eyes. No trace of eye-work can be found in Rome until the date of the Emperors, and the treatises of Celsus and Galen appeared. Soon after these writers the oculists' seals came into vogue, which were stones having one or more prescriptions engraved upon one face and the name of the surgeon on the other. After Paulus Ægineta darkness fell on science, and only in the sixteenth and seventeenth centuries were anatomical studies resumed under Vesalius, Fallopius, Ruysch, Briggs, Stenson, and others. The great French surgeon, Ambroise Paré, wrote a chapter on Wounds of the Eye in his work on surgery, and after him came Brisseau, St. Yves, Heister, and Winslow. All practised ophthalmic surgery. Many well-known names follow. Daviel, Petit, and Demours were celebrated as operators, whilst physiological optics were developed by Descartes, Newton, and Young. In later times it is only right to add, and it is freely admitted by the authors, that the Germans have taken a leading part in the development of scientific ophthalmology, as the names of von Graefe, Helmholtz, Donders, and Leber testify.

Again, there is a short but instructive chapter on the anthropological relations of the eye, dealing with the naso-ocular and orbito-occipital angles in different races, with the colour of the iris, the extent and direction of the palpebral fissure, the refraction, and other points. Short sections are also devoted to the comparative anatomy and to the development of the eye. The authors state very dogmatically that there are no dilator muscular fibres in the iris and maintain consequently that the movements of that membrane are simply those of constriction and relaxation; this theory involves the acceptance of two nerves, the third pair being the constrictors, and the sympathetic the dilator. In a section on the temperature of the eye the authors have brought together the scanty information that has been obtained, which is to the effect that in acute conjunctivitis the rise of temperature is 0·93° C.; in episcleritis, 0·49°; in keratitis with hypopyon, 1·45°; in lime burn, 1·29°; in iritis, 1·5°; in irido-choroiditis, 1·18°; and in dacryocystitis, 0·56°. In speaking of the mechanism of accommodation the authors approve of the explanation recently advanced by Tscherning, which is that in this act contraction of the ciliary muscle, tension of the zonule, and traction made upon the central part of the lens occur. Both the meridianal and the circular fibres of the ciliary muscle contract, the circular fibres recede slightly, press or drag backwards and outwards the zonule, and exert a traction in front on the lens. The radial or meridianal fibres advance slightly, stretch the choroid, and thus support the vitreous, which holds back the lens on which the forward traction of the zonule is being exerted. This theory certainly explains some points which are inexplicable upon the theory of Helmholtz. Thus, an increase in the curvature of the spherical lens of the fish is not conceivable as a result of the mere relaxation of the zonule. In both theories muscular action and the elasticity of the lens are brought into play. It is to be observed also that the ciliary muscle does not simply cause the anterior face of the lens to become more convex, but that, in addition, it draws the choroid forward, as Schäfer has remarked, and facilitates the forward expansion of the lens by opening the canal of Schlemm and permitting the escape of some of the aqueous humour.

The dioptrics of the eye and the various methods of instrumental examination are given in considerable detail. The reader will find an account of most of the apparatus that has been devised for the accurate determination of the functions

of the eye in regard to colour and refraction. A woodcut exhibiting phosphenes (after Serre d'Uzès) is given in which four crescents with their concavities inwards are depicted, but it seems to us that on pressure being made on the globe with the finger whilst the eye is rolled in the opposite direction as far as possible the demilunes have their convexity inwards. Under the head of Ophthalmoscope in the first volume the appearances presented by the fundus of the eye, with some account of their nature are given, which entails some repetition, both in regard to description and drawings in the second volume; no harm is done, but some space is lost. A good chapter is devoted to the preservation of specimens and to microscopic manipulation. The authors prefer Müller's fluid to alcohol and to corrosive sublimate, but formol is better than either, since it fixes well and does not stain like Müller's fluid. The osmic acid method is also mentioned, in which osmic acid is used in combination with chromic acid and glacial acetic acid. The formulæ for making gelatin-glycerine for preserving and exhibiting sections of the globes and those for staining the tissues of the eye are fully described. The second volume of MM. Truc and Valude's treatise is a clearly written manual. They consider that extraction of the lens in cataract, without iridectomy, is the operation that is now generally practised in France. They are of opinion that depression is a method of treating cataract that may again come into vogue, an opinion in which we entirely concur. In regard to the operative treatment of chronic glaucoma, they consider anterior sclerotomy to be the most appropriate. For the benefit of veterinary surgeons a chapter is devoted to the diseases of the eye in wild and domesticated animals. The work constitutes a very good *résumé* of the present state of the art and science of ophthalmology and is very carefully edited. We have noticed but few errors in the spelling of proper names, either German or English, though apart from the context we should hardly have known what to make of "shokes' Disk," intended for choked disk.

An American Text-book of the Diseases of Children, including Special Chapters on Essential Surgical Subjects; Diseases of the Eye, Ear, Nose, and Throat; Diseases of the Skin; and on the Diet, Hygiene, and General Management of Children. By American Teachers. Edited by LOUIS STARR, M.D., assisted by THOMPSON S. WESTCOTT, M.D. Pp. 1190. Philadelphia: W. B. Saunders; London: F. J. Rebman. 1894.

THERE is a growing tendency to issue medical text-books of large size written by numerous writers. This plan doubtless enables large books to be produced much more rapidly than when a single writer attempts to grapple with a large subject; and if writers of acknowledged authority are engaged on separate sections the plan is distinctly to be commended in representing the latest and most modern ideas of those best qualified to express their opinions. On the other hand, there are some inconveniences attached to this system of publication, the sections frequently overlap, and the methods of treatment and the weight of authority may vary materially in different parts of the work. The book before us appears to have received from the editor a large amount of care so as to eliminate the objections we have mentioned above, and he has gathered about him many writers from the most important medical centres of his country. In fact, he has endeavoured to stamp the work as national rather than purely local.

The introduction on the clinical investigation of disease and the general management of children is written by the editor, and in brief space he deals with several important subjects. Other sections, dealing with the diseases of the new-born infant, with the diathetic diseases, and with acute infectious diseases, follow. The paragraphs on diphtheria, tracheotomy, and intubation of the larynx are of considerable value from the lucidity of their explanations. The section on rickets is written by Dr. Lewis Smith and is rendered interesting by numerous figures and plates.

Where so many writers are concerned it is impossible to make separate mention of each, but reference may be made to the essentially practical character of the article on "Diseases of the Skin," which contains numerous prescriptions in addition to careful descriptions of the appearances.

The book is profusely illustrated with coloured plates, charts, and diagrams. It is to be regretted that the plates are of very unequal value and that in some cases they appear to have very little, if any, connexion with the text. It may further be pointed out that Plates XIX. and XX., although interesting in a work on general medicine, have little relevance to a book devoted to diseases of children. In some of the coloured plates, notably in those of Favus and Herpes Zoster, the colouring is so crude that the condition is almost unrecognisable. The figure on page 656 appears to have been wrongly named, the condition indicating opisthotonos rather than paraplegia.

LIBRARY TABLE.

Annales de l'Institut Pasteur. Edited by M. E. DUCLAUX. Tome X., No. 12. December, 1896. Paris: Masson and Co.—The articles in this periodical record of experimental investigation are of unusual interest: (1) Toxines non Microbiennes, by MM. Calmette and Delarde, dealing with the question of natural and acquired immunity; (2) Recherches sur le Pneumobacille de Friedländer, by M. Grimbert, chiefly dealing with its fermentative effects on various saccharine solutions; and (3) Contribution à l'Etude du Trypanosome des Mammifères, by M. Rouget, an extremely interesting account of a flagellated hæmatozoon which swarms in the blood of animals—horses, rats, donkeys, &c.—attacked with a peculiar disease. No cases in man have yet been recorded, but the disease appears to be prevalent among animals in Algiers and India. There is also an admirable critical editorial article on the Structure of Bacteria.

JOURNALS AND REVIEWS.

The Edinburgh Medical Journal.—With the new year this old-established journal commences a new series under the editorship of Dr. G. A. Gibson. It opens with an interesting retrospective paper by Dr. George Buchanan commencing thus: "Fifty years ago, on Tuesday, the 22nd December, 1846, I made myself insensible to pain by inhaling the vapour of sulphuric ether." He tells how he inhaled the vapour with a very simple apparatus and how his father, to prove that he was not shamming, pushed a lancet under one of his finger nails, which was naturally accepted as a thorough proof of his insensibility, seeing that the "patient knew nothing of the action." Dr. W. R. Gowers reports a case of Paralysis of the Fifth Nerve, "singularly complete and almost isolated." Dr. Lauder Brunton publishes the first instalment of a lecture on Pericarditis, written in his usual clear and incisive style; and Dr. Robert Fleming has a paper on Ascending Degeneration in Mixed Nerves, with Experimental Results. Altogether the new series promises well.

The Dublin Journal of Medical Science.—Mr. R. Glasgow Patteson reports a case of Successful Disarticulation at the Hip joint. The chief points observed were the prevention of hæmorrhage by an elastic tourniquet and an incision planned so as to divide the femoral vessels last. Dr. A. Birmingham has a note on Asymmetry of the Sternum. Fifty-four sterna were examined, of which twenty-seven showed a diminution of the vertical depth of the manubrium on the right side and twenty on the left, while seven were symmetrical.

The Journal of Anatomy and Physiology. Conducted by Sir W. TURNER and Professor M'KENDRICK. Vol. XXXI., Part 2. January, 1897. London: Charles Griffin. Price 6s.—This part contains several interesting articles. 1. Alfred H. Young, M.B. Edin.: Abnormalities of the Middle Sacra Artery and their Morphological Significance. 2. Swale Vincent, M.B. Lond., and H. Spencer Harrison, Student, Royal College of Science, London: On the Hæmolymph Glands of some Vertebrates. This paper includes an account of the glands in question in fifteen species of mammals, six of birds, two of reptiles, and in several fishes. 3. Gordon Sharp, M.D. Edin.: On the Action of the Products of the Organism of Diphtheria on the Heart Muscle of the Frog. He finds that diphtheria poison is to be classed with the acids which have as their final action the stoppage of the heart muscle in diastole. Hence he believes that the general line of treatment in diphtheria is stimulation without ultimate depression. 4. Albert A. Gray, M.D. Glasg.: An Investigation into some of the Principles of Auscultation—an article containing the results of many careful experiments and observations deserving the study of physicians. 5. R. J. Lloyd, D. Lit.: The Genesis of Vowels, with a plate. 6. On the Interpretation of the Phonograms of Vowels, by the same author. 7. Herbert Page, M.D.: Post Mortem Artificially Contracted Indian Heads. These are made by the Indian tribes of South America, who preserve them as trophies or idols. About twenty-seven specimens are known to exist, and Dr. Page gives some curious drawings and details respecting them. 8. Leslie Buchanan, M.B. Glasg.: The Glands of the Ciliary Body, with a plate. 9. Joseph Griffiths, M.D. Edin.: A Descriptive Account of the Genital Apparatus in the Boar and in the Pig. 10. R. Broom, M.D. Glasg.: On the Occurrence of an Apparently Distinct Prevomer in Gomphognathus; and by the same author—11. On an Apparently hitherto Undescribed Nasal-floor Bone in the Hairy Armadillo. 12. T. Wardrop Griffith, M.D. Aberd., Professor of Anatomy, Yorkshire College, Leeds: On an Abnormal Muscle of the Hand, with Remarks on the Course of the Radial Artery. This article relates to the first dorsal interosseous muscle. 13. A. F. Tredgold, London Hospital: Variations of Ribs in the Primates, with especial Reference to the Number of Sternal Ribs in Man. 368 specimens of different animals were examined to enable the author to draw his conclusions. 14. John G. M'Kendrick, M.D. Aberd.: Notes on certain Physical and Physiological Measurements and Estimates. A very useful series of data, to be classed with Vierordt's "Daten und Tabellen." 15. Thomas H. Bryce, M.B. Edin.: Note on Two Useful Accessories in Serial Section-Cutting by the Paraffin Method. 16. David Harris, M.B. Glasg.: Summary of a paper entitled "On the Variations in the Character of the Contractions of Striated Muscle with Periodic Stimulation of some Duration and on Recovery of the Muscle," by Alex. Rollett of Graz. Lastly, the proceedings of the Anatomical Society of Great Britain.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—The fourth meeting of the session was held on Jan. 13th in the Medical Library of University College, Dr. Aust Lawrence being in the chair.—Dr. Waldo showed a patient with Thoracic Aneurysm, in whom tracheal tugging was well illustrated.—Dr. J. G. Swayne and Mr. W. J. Penny made remarks on the case.—Dr. T. Fisher showed a number of Mounted Pathological Specimens recently added to the Royal Infirmary Museum.—Dr. W. H. Newnham read a paper on Three Vaginal Hysterectomies for Malignant Disease.—Dr. W. C. Swayne, Dr. J. G. Swayne, Dr. Michell Clarke, Mr. Greig Smith, Mr. Morton, Mr. Ewens, and Dr. Aust Lawrence spoke at length on the paper.—Dr. B. Rogers read a paper on a Case of Mediastinal Inflammation.—Dr. Michell Clarke, Dr. Fisher, and Dr. Waldo remarked on the paper.

New Inventions.

(1) A NEW HÆMOGLOBINOMETER AND (2) A NEW HÆMOCYTOMETER.

THE principle of the hæmoglobinometer invented by Dr. George Oliver, and described by him in the last Croonian Lectures, is that of the tintometer—viz., the measurement of colour by means of graded glass standards. Doubly transmitted light is used, the blood being diluted to fill a cell having sulphate of lime at the bottom (under a cover-glass) so as to form a dead-white reflecting background. The glass standards, which match the colour of blood to a nicety, are mounted on a similar white background for comparison. It will be noticed on careful inspection that besides the successive additions of colour in going from one glass standard to the next there is a difference of tint as well. In working out the standards it was found that although a particular liquid, such as carmine, could be made up to match blood at a particular point of the scale, yet on dilution there was considerable divergence. The reason for this is that every liquid has on dilution or concentration a specific colour curve, which is a characteristic of the substance as its specific heat. Consequently it is impossible to read accurately the variations in depth of colour of one substance by means of a scale composed of a single other substance. This important physical law seems to us to put Von Fleischl's hæmometer, in which a wedge of unicoloured glass is used as the standard, out of court altogether. In Dr. Oliver's hæmoglobinometer each degree of the standard is graduated separately by means of the tintometer against the previously ascertained colour curve of diluted blood. To render the colour easier to read the brilliancy of the diluted blood against the white background is lowered by covering the cell with a pale blue tintometer glass. There are twelve graduations in the standard, ranging from 10 to 120, intermediate points being read by means of tinted glass riders, of which two are sufficient for clinical work, but nine are supplied for physiological investigations. Normal blood reads 100 on the scale, corresponding to 15 per cent. of hæmoglobin. Although a daylight set is made, the candle-light set of standards is recommended as being more delicate. The comparisons between the blood and the standards are made through a camera tube so as to exclude all extraneous light. Either a collapsible tube contained in the case holding the apparatus may be used or a sliding tube on a stand, the latter being much more convenient.

When a glass tube is drawn out longitudinal lines or minute ridges are formed in the glass. If the tube be filled with a transparent liquid and a distant light, such as a candle flame, be viewed through it, a tiny image of the flame is formed by each ridge, the whole series appearing as a bright transverse line. This fact is made use of in the hæmocytometer invented by Dr. Oliver. Ten cubic millimetres of blood are washed into a flat graduated tube and diluted with Hayem's solution until the line of light formed by the images of a candle flame about ten feet off is just visible. The level of the liquid in the tube is read off and the graduation corresponds to a definite proportion of corpuscles present in the blood. With a little practice very delicate readings can be obtained. The instrument is intended to be used in conjunction with the hæmoglobinometer noticed above. By combining the results the exact condition of the corpuscles themselves can be ascertained. This is important, as it is possible for the corpuscles to vary considerably in the amount of hæmoglobin they contain, although the state of the blood, taken from a general point of view, might appear normal.

These instruments appear to be the most accurate and by far the most delicate yet designed for the measurement of blood. Both are made by the Tintometer Company, Limited, 6, Farringdon-avenue, E.C., who on application will gladly send a representative to demonstrate their use and working.

THE LANCET.

LONDON: SATURDAY, JANUARY 23, 1897.

WE cannot wonder that the calamitous news about the plague-stricken condition of Bombay and Karachi claimed a separate paragraph in the QUEEN'S Speech. The epidemic, we are assured, shows no signs of decrease, notwithstanding the precautions adopted by the local authorities; and we can only trust that the stringent measures which the Government have been directed to take for the eradication of the pestilence may prove more effectual. It would, indeed, be difficult to imagine a more lamentable state of affairs than the large, important, and hitherto prosperous city of Bombay presents at this time. The situation has been rapidly growing from bad to worse, and the exodus still continues, according to the latest accounts. We have had graphic and gruesome pictures of the sickness, mourning, and desolation which prevail at Bombay, of the deserted streets, closed shops, unfrequented law-courts, and general paralysis of business, of the wholesale departure of the people, of the difficulty of disposing of the dead, and of the terror of the native medical men, who refuse to visit or touch the sick lest they contract the disease. Europe and the outside world have naturally taken alarm and have almost universally adopted quarantine arrangements against Bombay.

Happily for us we have had in this country no experience of this scourge since the great plague followed by the fire of London, and our knowledge of it is mainly traditional and derived from literature and historical romances. There have, of course, been several descriptions of the outbreaks of Levantine plague, which have now and again occurred in more modern times in the East. The late Mr. NETTEN RADCLIFFE some years ago prepared a summary account of the then existing information, but, speaking generally, people did not occupy themselves with what appeared to be a remote contingency as far as they or their country were concerned. The late epidemic at Hong-Kong and in China aroused, of course, a certain amount of public attention and added to our knowledge of bubonic plague in that a specific micro-organism was discovered in the subjects of that disease. Still, European pathologists have really had but little opportunity of investigating plague by the more modern methods of scientific research. The news, if found to be true, that the lower animals—rats, pigs, and domestic fowls—are affected by the disease, and that ants preying upon the dead bodies of the plague-stricken smaller animals may be the disseminators of a pathogenetic microbe, opens out a new and wide field for investigation. As regards the causes—the foster-mothers and nurses of the disease—which led up to the present epidemic in Bombay, it may, we think, be rightly inferred that these were attributable to a long course of neglect of sanitary precautions. The descriptions given of the state of some of the districts and native quarters of Bombay show that a muck-heap or hot-bed was being slowly but surely prepared for the germs of this and other epidemic diseases when once introduced from without. That there have been opportunities of late years for the introduction of the germs of bubonic plague into the city cannot be denied, notwithstanding that we may fail to trace exactly the "how" and the "when."

What should now be the principles—the common-sense line of action—that should be followed in respect of the plague in India—at Bombay, Karachi, Poona, and whithersoever the disease has been carried and has manifested itself? In the first place it should be a subject for anxious consideration whether, under the circumstances and in view of our international obligations, steps should not be at once taken either to prohibit the pilgrimage to Mecca altogether or, at any rate, to discourage in every way in our power pilgrims from India from undertaking that religious but perilous journey. The great flight from Bombay having already taken place, it is obviously too late to do anything in this respect as far as the rest of India itself is concerned. We must be guided generally in our course of action in this as in the case of other known infectious diseases. What is wanted in Bombay and Calcutta is the purification, as far as practicable, of the foul native quarters of these Eastern cities, and, to be thoroughly logical, their destruction by fire even should be considered. There should be large open spaces provided somehow in the place of the overcrowded foul buildings. Large camps on open, healthy sites might be supplied for temporary occupation so long as the epidemic lasted. Segregation hospitals for the plague-stricken and infected people are required; also, an organisation for a systematic house-to-house visitation, public kitchens or depôts for the supply of food for the famine-stricken natives, and numerous small dispensaries for the supply of medical aid in connexion with a system of ambulance transport might be instituted. There should be available, also, means of ready disinfection by heat or otherwise, and for the burning of infected and fouled clothing at several convenient centres. A central public health committee, composed of some practical sanitary engineers and medical officers, with one or two good organisers and energetic administrators, and a large staff of executive subordinates, should be, and probably has already been, formed with power to devise and carry out what is held to be necessary. We would also counsel that application should be made to Hong-Kong for the temporary services of some medical official of practical experience who is thoroughly acquainted with all that had been done there during the late outbreak of plague. We sketch in outline the principles which should be followed in attempting to arrest or limit the progress of the epidemic. It must be left, however, to the local authorities acquainted with native customs to determine what is possible or practicable.

THE valedictory address on the subject of Antiseptic Midwifery (which is published in full at p. 221) delivered by Dr. CLEMENT GODSON on the occasion of his retirement from the presidentship of the Gynæcological Society should be read by all practitioners of obstetrics,

whether engaged in hospital or in private practice. The subject is a momentousone, touching the safety of puerperal women, of whom four or five thousand still die annually. Dr. GODSON, in his address, does not pretend to announce anything startlingly new or original. His exposition of the efficacy of antiseptics, and especially of corrosive sublimate, has been anticipated by Sir JOHN WILLIAMS, Dr. BOXALL, Dr. CULLINGWORTH, Sir WILLIAM PRIESTLEY, and many others. But, for all that, it is so clear, so simple, and so practical, it is based on so striking an experience, and is, withal, so just to other obstetric authorities, as to entitle him to the gratitude of the Society and of the profession. The case of the lying-in woman is very familiar, daily in its occurrence, and apt to be regarded as a purely natural or physiological process. Practitioners are thus thrown off their guard in respect of its risks. But the fact remains that somehow or other four or five thousand women each year come by this process to their death, and there is every reason to think that such a mortality of the puerperal cases of the country might be reduced certainly to one-half and probably to a much lower proportion.

Half the interest of Dr. GODSON'S address is in the vividness with which he illustrates the mortality of the lying-in hospitals under the old *régime* and prior to the introduction of the use of antiseptics. He speaks particularly with reference to the case of the City of London Lying-in Hospital, which is now 124 years old. The account he gives of the constant and quickly-recurring outbreaks of puerperal septicæmia leading to such a number as necessitated the closure of the hospital for weeks or months makes us almost wonder how it was possible to get physicians to serve on the staff. His connexion with the hospital goes back twenty-seven years. At that time (1870) the patients were dying at the rate of one in nineteen, so that he soon had to appeal, in conjunction with Dr. GREENHALGH, to have the hospital closed. All that fresh paint and colouring could do, with new palliasses and hair mattresses in place of old feather beds, and repaired and double-trapped drains, was done, and it must be admitted with obvious reduction of mortality, lasting for a time. Then followed a gradual rise till another appeal (1877) was again necessitated, and Dr. DE CHAUMONT of Netley was invited to report on the hospital. Great alterations were made at an outlay of £4500, and the hospital was closed for sixteen months. In the immediately ensuing eight months of 1879 the mortality was reduced to 1 death in 278 cases. But with 1880 came the crushing disappointment of a mortality of death 1 in 19. More money was spent on the hospital and a sub-committee recommended that the hospital should be pulled down and rebuilt. Only the back part of the building was pulled down, alterations were made costing £1000, and the hospital was again closed for five months. In five more months it had again to be closed for cleansing, disinfecting, and whitewashing purposes, with marked *temporary* improvement in results—1 death in 104 cases.

The mortality again began to rise and the closure had to be resorted to in 1886 for a mortality of 1 in 44. But now a new state of matters was to be introduced fraught with new hope for lying-in women and a new lease for lying-in hospitals which were rapidly becoming discredited. An agent that hitherto had been regarded chiefly as a poison came to be known as more potent in the saving of lying-in women—at least, in lying-in hospitals—than all the costly repairs and closures that had chequered the history of the hospital in its past years. The physicians of the General Lying-in Hospital—Dr. (now Sir JOHN) WILLIAMS and Dr. CHAMPNEYS—published in 1884 the admirable results of their use of corrosive sublimate as an antiseptic. It was adopted by Dr. GODSON and his colleagues in the City of London Lying-in Hospital, and in the way he describes in a footnote to his address, with the result that from July 1st, 1886, to Sept. 30th, 1887, no fewer than 480 confinements took place without any death. In the last ten and a half years 4608 women have been delivered with 11 deaths, or 1 in 419. From Jan. 1st, 1892, to Dec. 31st, 1896 (five years), there were 2892 deliveries with 3 deaths, and these, not from sepsis, but 1 from embolism and 2 from puerperal eclampsia. The change is momentous, and, as narrated by Dr. GODSON, most impressive. He was induced to make the statement on which we are commenting chiefly by a remark made by one of his predecessors in the Presidentship of the Gynæcological Society—Dr. BANTOCK—who attributed "the marvellous effects of the antiseptic method in midwifery practice to the principle of cleanliness, and called attention to the large number of deaths due to poisoning by corrosive sublimate." Dr. GODSON assures us that in the City of London Lying-in Hospital not the slightest sign of mercurial poisoning has been observed, and does not see why the system should not be used in private practice also. There is probably not the same risk to the lying-in woman in a private house. But private houses have their own special risks. And it is clear that in private midwifery practice there are frequent cases of puerperal pyrexia, often fatal, which are now rarely seen in well-regulated lying-in hospitals. It is a question for every individual practitioner to consider for himself. Until of late years the results of private obstetric practice would bear a favourable comparison with those of lying-in hospitals. Now it is rather the other way. And it is for private practitioners to maintain their former advantage. Dr. GODSON describes with creditable candour and force the distress he felt in losing his first private patient from puerperal septicæmia. In no part of his address is he more true to the general feeling of the profession than here. He now evidently considers such an experience almost impossible, apart from some internal and accidental source of mischief, as latent pyo-salpinx. Let every practitioner be as fully and justly persuaded that his methods are safe. He will then equally advance the security of his puerperal patients and his own professional happiness.

WHEN the regulations for the conduct of the half-yearly meetings of Fellows of the College were framed we pointed out that inconvenience would be experienced from fixing the quorum at so high a number as thirty, the same number as for the larger general meetings of Fellows and Members. Our objections have been justified by the proceedings at the half-yearly meeting of Fellows held on Jan 7th.[1] It looked

[1] THE LANCET, Jan. 16th, 1897, p. 199.

at first as if the quorum would not be obtained, but at the end of a quarter of an hour a small balance over the quorum had been secured, and the meeting was then composed of thirteen members of the Council and twenty-six other Fellows. The quorum, however, could not be maintained till the close of the proceedings.

The *pièce de résistance* of the agenda consisted of two motions by Mr. HOLMES and by Mr. RIVINGTON respectively regarding the case of Mr. R. B. ANDERSON, with which everybody sympathises, even when fatigued by frequent repetition. In Tobago and Trinidad Mr. ANDERSON was the victim of judicial harshness and persecution and denied the right to dispose of his professional services by retiring from a case when circumstances rendered it expedient and possible without injury to his patient to do so. He was also precluded from recovering his reasonable fees for attendance. For the exercise of his professional rights mainly derived from his diplomas from the College he was fined and deprived of his fees, whilst to crush his resistance to illegal proceedings he was subjected to two actions for contempt of court which he successfully surmounted, had exorbitant bail imposed upon him, and not being able immediately to produce it was committed to prison. The verdict of £500 damages he obtained in the action which he brought in the Queen's Bench against the colonial judges has been of no service to him, and he finds himself additionally weighed down by the costs of the action still due to his solicitor and to one of the judges who was acquitted of malicious action. At meetings held in the College, both by the Fellows of the College and by the Fellows and Members together, resolutions have been passed bespeaking the action of the Council in his favour. In July the Fellows of the College requested the Council to instruct the representative on the General Medical Council to forward in every way that seemed feasible the objects of the Civil Rights Defence Committee in the case of Mr. ANDERSON. The Council adopted the identical terms of the resolution, and Mr. BRYANT, the representative of the College, undertook to do what he could. But the net result of his speech, as Mr. HOLMES has pointed out, was that "Mr. ANDERSON would find additional difficulty in obtaining the justice to which he is entitled." It was not, therefore, surprising that Mr. HOLMES, who has displayed a warm interest in Mr. ANDERSON'S case, should have moved to ask the Council whether their representative had correctly interpreted his instructions. The motion was, however, lost by a single vote.

The Fellows and Members of the College last November carried a resolution asking the Council to contribute "a substantial sum towards the defence of the rights of Mr. R. B. ANDERSON, these being the common rights of the Fellows and Members which the College under By-law XV. has undertaken to defend." The Council replied, re-affirming the resolution adopted in August last—"That the Council, while sympathising with Mr. ANDERSON in the circumstances in which he is placed, do not feel justified in devoting any of the funds of the College towards the promotion of his appeal to the House of Lords." This resolution of the Council was evidently no sufficient answer to a general resolution asking for the "contribution of a substantial sum towards the defence of the rights of Mr. R. B. ANDERSON." It is to be observed that the appeal to the House of Lords, though very important for obtaining a declaration of the law and pecuniary compensation for Mr. ANDERSON, is not, like the appeal to the Privy Council, a direct method of restoring to him his former position at Tobago and his right to practise there. To this effective means of securing the redress of Mr. ANDERSON'S disabilities—means stamped with the approval of the Council of the College in June, 1894—Mr. RIVINGTON'S motion was, we presume, intended to draw attention. Without committing itself to any declaration upon the exact scope of By-law XV. or any indication of being prepared to afford pecuniary aid the Council did at that time decide to afford to Mr. ANDERSON, at the very least, the moral support involved in the appointment of two representatives on the Civil Rights Defence Committee to further the appeal to the Privy Council, the only appeal which the committee had then undertaken. If the by-law only carried with it the obligation to afford to Fellows and Members disturbed in their "rights, privileges, exemptions, and immunities" the moral support of the Council there can be little doubt that the applicability of the by-law to Mr. ANDERSON'S case would not only not have been questioned but cheerfully accepted. It is perfectly right for the Council to exercise a jealous vigilance over the expenditure and to be very careful not hastily to commit itself to pecuniary obligations for the protection and defence of the Fellows and Members. At the same time the Council is bound to fulfil its obligations under the by-law even if they do involve a considerable expenditure, and the position of the Council at present is very peculiar and embarrassing. The great majority of the members of the Council, we believe, will not admit any pecuniary obligation under the by-law, and at the same time refuse to submit the by-law with the particulars of Mr. ANDERSON'S case for the opinion of counsel. They will probably not retire from this position unless, and until, Mr. ANDERSON makes formal application to the Council to protect him in the exercise of the rights, privileges, and immunities guaranteed to him under By-law XV. of the College.

IT has been announced in the public press that, on the invitation of the Austrian and Russian Governments, an International Conference will be held as to the prevention and control of bubonic plague should that disease advance towards the confines of Europe, and that Her Majesty's Government have consented to be represented at it. It is further stated that the Conference is likely as assemble in Vienna. We believe the announcement to be in several respects premature, but there is no question but that various Powers—notably, those bordering on the Mediterranean—have practically decided to take some common action in the matter. The attitude of this country becomes, therefore, a matter of primary importance. Hitherto we, as a nation, have based the whole of our public health action and administration on the sound principle that individuals are to be treated as healthy unless they are honestly believed to be sick. We thus maintain, for purposes of public health,

the sacred traditions handed down to us by our forefathers in the matter of the criminal law—namely, to hold all innocent who are not proved to be guilty. This tradition, in its application to public health, is now at least half a century old, and it has been an inestimable boon in the promotion of public health and in the saving of life. So, also, other nations have advanced in public health just to the extent to which they have acted on the same principle. It was largely the unfortunate abandonment of this principle, which had been internationally proclaimed at the Venice Conference, that led to the breakdown of the Paris Conference as regards action in the Persian Gulf; and it must be a satisfaction to know that that principle, to which Great Britain has consistently adhered, is already definitely established by this country in connexion with her intended dealings with plague. When the last remnant of our quarantine law was abolished last session, the Government, doubtless acting on the advice of the medical officer of the Local Government Board, declared by an official Order that they would deal with plague on the same lines as they had dealt with cholera. This Order is practically the law of the land on the subject; and whatever other nations may do in their ports we trust that the British Government will not, as regards English ports, recede from an attitude which has more than any other tended to raise the standard of health and to save thousands of lives from preventable disease. Unfortunately, we are handicapped. Some of the most retrograde Governments of the world have their sway in the basin of the Mediterranean, and they can now point to the action by which Malta has opened the year of grace 1897 by actually setting the ball rolling with "twenty days' quarantine" on all arrivals from India, even when the highest standard of health has been maintained during the whole voyage. It is this reversion to the days of mediæval sanitary neglect and ignorance of the true laws of health that defeats more than anything else international coöperation and unanimity with regard to action on the only sound laws of health.

Annotations.

"Ne quid nimis."

A CENTRAL HOSPITAL BOARD FOR LONDON.

WE are pleased to see in almost every quarter indications of a serious determination to investigate the faults of our voluntary hospital system, with a view to its perpetuation and improvement. We have no wish to see so fine a feature of English humanity and charity disappear or to have the system exchanged for State- or rate-supported institutions. It is for this reason that we have ourselves initiated a searching inquiry into the working of our voluntary hospital system. For the same reason we welcome every movement conceived in a friendly spirit and having for its object the improvement of the administration of our hospitals. One of these movements aims at the formation of a Central Hospital Board for London, as recommended, it will be remembered, by the House of Lords Committee on Hospitals which reported in 1892. A meeting to further this project is to be held on Monday next, at 4.30 P.M., at the Royal United Service Institution, Whitehall, when Sir William Broadbent, Dr. Lauder Brunton, Mr. G. D. Pollock, Mr. Victor Horsley, and others are expected to speak. The general nature of the scheme is before us, with a list of medical and other gentlemen who favour it, and a preliminary list of a general committee for stimulating public feeling in its support. It must be admitted that this scheme has not been enthusiastically received. Probably this has been due to the nature of the case rather than because of any dissent from the general principle of the scheme. The hospitals are separate units and their disposition is to remain so. They have to fight for their existence and they are apt to think they can best do so by preserving absolute individual freedom. But the result of this utter want of coöperation has been to reduce the hospitals themselves to a state of uncertainty and impecuniosity; to make public opinion critical rather than charitable; and to bring about a rapidly changing sentiment in the medical profession towards institutions to which it has hitherto looked with respect and gratitude. With regard to the meeting to be held on Monday we need not now do more than say that we feel a deep interest in the scheme. We are not blind to the difficulties of carrying it into execution and of creating a central body that shall supervise and inspect our hospitals and dispensaries. But it will do so in no compulsory way and as much in their interest as in that of the public and of the medical profession. We have always hoped that the Council of the Hospital Sunday Fund (with the assistance of that of the Hospital Saturday Fund) might have fulfilled the functions of such a board. It has given much to the hospitals and has had to express strong opinions on evils and defects in the system, and its final word has not been spoken with respect to the monstrous abuse of the out-patient system. It seems almost inevitable therefore, that a body must be created for the purpose of friendly investigation and, where necessary, of correction. One most pleasing feature in the preliminary list of the general committee is the inclusion of members—and much respected members—of the staffs of important hospitals in London, as well as of many influential laymen. We can imagine nothing better for our voluntary hospital system than the appointment of a strong central board, representative of all who support hospitals as well as of the medical profession. The staffs of our hospitals have the responsibility of contributing the indispensable element of all hospital charity and owe it to the public and to their own profession to do so on well-defined and approved conditions.

THE MIDWIFE AS OPERATOR.

"A LITTLE knowledge is a dangerous thing"—unless its possessor knows how little it is. Midwives are, without doubt, of great value to a community when it is fully recognised that they are specially trained nurses and nothing more. The moment a midwife steps beyond the narrow limits of her legitimate sphere of action she becomes a veritable danger. It is quite unnecessary to lay any stress on the point that midwives should not attempt anything that could be called operative midwifery. That is acknowledged by everyone; but it is by no means needless to utter a warning against a tendency which undoubtedly exists for them to take upon themselves the performance of some of the minor operations of surgery. Even the smallest surgical operation is full of risks and requires an amount of technical knowledge which is not possessed by a midwife; and the complications which may occur and the sequelæ which may follow need all the care of a skilled surgeon for their recognition and treatment. Among the many dangers which beset even the most trivial operation may be mentioned especially hæmorrhage and sepsis. Without a knowledge of the course of the arteries it is not in the power of an operator to avoid occasionally

wounding important vessels and fatal hæmorrhage may occur; and should it chance that hæmophilia is present the danger is increased a hundredfold. From sepsis also the risk is great, for though a midwife may talk learnedly of germs and antiseptics, yet her practice of asepsis is usually very faulty. Should septic complications arise they are often unrecognised until the case is hopeless. A very good example of the harmful effects which may follow even a very simple operation by a midwife is reported in another column. The wife of a labourer was attended in her confinement by a midwife employed by a lying-in charity; on the following day the midwife noticed that the child was tongue-tied, and she divided the frænum linguæ with a pair of scissors. It is said that no hæmorrhage occurred at the time, but the next day blood flowed at intervals from the mouth. At first the midwife contented herself with washing out the child's mouth with a little water, but ultimately, after the hæmorrhage had lasted for twenty-four hours, a medical man was called in, and as the bleeding recurred the child was admitted into the Norfolk and Norwich Hospital, where he died a few hours later. The stomach and intestines contained much blood. The wound is described as having been from half to three-quarters of an inch in length. The midwife urged in excuse that she had done the operation successfully on several other occasions, and the jury at the inquest returned a verdict of "Death from misadventure." Unfortunately, this case does not stand alone, and it would be well if measures could be taken to do away with such unskilled operating.

THE COMMERCIAL VALUE OF A MEDICAL PRACTICE IN FRANCE.

IT has recently been decided by a Parisian tribunal that a medical practice in France possesses no commercial value whatever. We are indebted to *La Presse Médicale* for the following particulars of the case which led to this important decision. In 1885 an unqualified individual named Alliot opened an institution in Paris where he professed to cure cancers of the breast by a secret method of treatment which had been handed down to him from an ancestor of his who was physician to Louis XIV. The business apparently flourished until 1893, when Alliot died; whereupon his widow came to terms with her brother-in-law, Florent Alliot, who agreed to exploit his deceased brother's practice for her benefit. The new cancer curer was an *officier de santé*, and up to January, 1896, all seems to have gone on as well as possible. For one reason or another discord then arose between the pair, and having ceased his attendance at the institution Florent Alliot set up on his own account in another street. The widow, however, being a woman of resource was not easily discouraged. Amongst her acquaintances there happened to be a universal genius named Bernard, with whom she incontinently entered into partnership, and the original cancer-curing concern was soon going on as merrily as ever. Upon this Florent brought an action against the new associates, alleging that his late brother's practice was his exclusive property, and claiming damages to the extent of 4000 francs. The widow and Bernard, in reply to this attack, immediately lodged a counter-claim for 5000 francs damages against the plaintiff, whom they further accused of fraudulently copying the prospectus of their old-established institute and also of appropriating to himself the stock cures belonging thereto. So far the details are sufficiently mean and sordid, but the judicial ruling, being equally applicable to properly qualified practitioners, is worthy of note. A medical practice, said the presiding magistrate, cannot be made the basis of a contract, inasmuch as it reposes exclusively upon the confidence which the medical practitioner's knowledge and experience have inspired. That confidence is not transferable as a gift, still less, being essentially non-commercial, can it be sold. When a medical man dies his practice dies with him; in the eye of the law it has ceased to exist and cannot, therefore, be exploited by the heirs, even though these should associate with themselves a qualified person. The several parties in the present case are consequently nonsuited.

THE ORGANISATION OF PROVIDENT DISPENSARIES BY THE PROFESSION.

A CORRESPONDENT, "Beta," writes on the subject of the organisation of provident dispensaries by the profession as a piece of tactics in the "Battle of the Clubs" and on the supposition of an undisguised antagonism on the part of the old friendly societies towards the profession. In order to checkmate these societies he argues that it would be necessary for the profession, either alone or with the help of insurance companies, to cater, not only for the delicate part of the working-class population, which is the part that supports the medical officer in this controversy, but for the strong young men who need the medical officer but little, but want the benefits of a sick club of assured soundness that will last their lives and yield them 10*s.* or 12*s.* a week in sickness. Moreover, there must be such an organisation of these throughout the country that men migrating from one place to another will be able to carry with them the advantages of their membership. There is much material for consideration in our correspondent's letter. But we would point out that he is proposing a very large undertaking to the profession, which would immensely complicate its anxieties and distract its attention from proper medical work. Coöperation with insurance offices in its present form is liable to the most serious objections of small pay, canvassing, and subjection to commercial companies. Recognition of the provident principle in some form is essential and has been the practice of the profession for generations. But the more the profession keeps clear of commercial companies and associations the better; it should confine itself to strictly medical work on terms honourable to the medical man and considerate to the working-classes.

THE ELECTION OF CORONER FOR THE LOWER DIVISION OF PEMBROKESHIRE.

ALLUSION was made in THE LANCET of Nov. 21st, 1896, page 1477, to the fact that a vacancy had occurred in the office of coroner for the Lower Division of Pembrokeshire, and that the candidates comprised one medical and five legal candidates. The election is fixed for Feb. 2nd, and the issue, we are informed, practically rests between two candidates—Mr. Herbert Price, solicitor, and Mr. Hugh Pughe Jones Price, surgeon. The first-named gentleman bases his claim for the office upon the circumstance that he is the son of the late coroner and is at present acting as deputy coroner. He is about twenty-five years of age and at the present time holds various appointments, the value of which amounts to between £400 and £500 per annum. Now we would strongly urge the county councillors with whom the election rests to make the appointment without fear, favour, or affection. Politics and private friendship ought not to be allowed any weight in the election of such an important office as that of coroner. What are the claims of Mr. H. P. J. Price, the medical candidate? He obtained the qualifications M.R.C.S. Eng. and L.S.A. in 1872, and must therefore be at least forty-five or nearly double the age of his legal opponent, while still being in the prime of life. He is consulting surgeon to the Haverfordwest Infirmary and has held for some time the offices of medical officer, medical officer of health, and public vaccinator of one of the districts of the Narberth Union. He has also been certifying factory surgeon. The vacant district is an agricultural one, but contains the towns

of Haverfordwest, Tenby, Pembroke, and Milford. It extends thirty miles in one direction and twelve in another. The population is 53 925 and the inquests average about eighty yearly. Mr. H. P. J. Price is the only medical candidate, and though other lawyers are in the field the issue will, it is said, be between the two—Mr. Herbert Price, solicitor, and Mr. Price, surgeon. There ought to be no difficulty in deciding. From what we have already stated the medical candidate is the older and more experienced man. But the county councillors must also bear in mind that the duty of a coroner is not only to hold an inquest as to the cause of death, which of itself is distinctly and essentially a medical function: it rests with him entirely to decide whether a death is natural or unnatural, whether the cause of a sudden death is or is not unknown, and whether a death has or has not been a violent one. These questions can only be answered satisfactorily by an experienced medical practitioner—a most important point. For useless inquests are not only a grievous infliction upon those who have to act as jurors, but they cause much unnecessary pain to the bereaved relatives. The viewing of a body by a legal coroner is an absolute farce; to the medical coroner it is an object lesson which he has studied since his early student days. Then as to the taking of evidence, about which so much capital has been made for legal coroners, there is some misapprehension. A surgeon who has discharged the duties of the appointments held by Mr. H. P. J. Price for years past has had more experience of the sifting of evidence such as is required by a coroner than the most experienced solicitor. The inquisition *super visum corporis* is distinctly a medical inquiry and it is greatly to be hoped that the next amendment of the Coroners Act will be one making a medical qualification essential to the office of coroner. Meanwhile, city and county councillors will do well to elect experienced medical candidates who alone can deal satisfactorily with the important questions submitted to them both before, and during, an inquest.

HAS THE FISH A MEMORY?

PROFESSOR LUDWIG EDINGER is collecting information on this point and writes to us as follows:—"Have fish a memory? A request for information. There is a general opinion that fish have some sort of memory, that they can recognise people, know how to find or to avoid places where they have made formerly some experiences, that fish which have once escaped the rod know the bait, &c. It is highly desirable that all experience of this kind should be collected in the interest of comparative psychology. The reason is that till now we believed the function of memory to depend on the action of the brain cortex. All experience in man and in the higher animals has led to that conclusion. During the last years it has been proved that fish have no brain cortex at all. They are the only existing vertebrates without a brain cortex. Now if we could prove beyond the possibility of doubt that fish really have a memory, that they gain experience and can make use of it, then we shall have to give up the till now general opinion that memory has its seat in the brain cortex. Therefore it is extremely important to have an entirely new set of experiences." Professor Edinger then asks all anglers and naturalists to communicate to him any experiences they may have had, requesting them particularly to take nothing for granted, as the smallest observation may prove of the greatest importance. Professor Edinger's address is 20, Gartnerweg, Frankfurt, Main. Here, then, is a splendid chance for anglers to tell their pet tales and to throw light on this interesting question. Many incidents which commonly occur to anglers would decidedly o against the theory that fish have memories. Thus, a fish which has had a fly broken in his mouth will often immediately take another, and on being captured the broken one may be found still sticking in his mouth, and then it is well known to fishermen that a pike which escapes while it is being played will often again ferociously seize the bait if it be at once temptingly offered him. Such well-known facts as these do not at first sight point to any highly developed powers of reasoning in the fish, but before drawing any conclusions from them, another factor—that of sensibility—must also be taken into consideration. It is highly probable that a fish hooked with a small flyhook in a gristly part of the jaw feels little or no pain, and therefore if the hook immediately breaks, the fish possibly looks upon it as a very slight inconvenience which in no wise need hinder him from continuing his meal. A fish's brain is a very small mass compared with the weight of the body, and is also small in comparison to the spinal cord. We have no doubt that Professor Edinger will receive many interesting communications from people who are in the habit of studying the habits of fish carefully, and it is to be hoped that some reliable conclusions will be drawn from them.

"DOCTORED" TOBACCO.

WHY is tobacco so often highly scented? Is it not reasonable to suppose that in many cases it is to mask an inferior quality which otherwise would be manifest? That the treatment of tobacco with various essences and flavours is practised there can be little doubt, and every intelligent person knows that in by far the majority of instances the peculiar aromatic flavour of the tobacco he buys does not naturally belong to the tobacco leaf at all. We have strong reasons for believing that the dosage of tobacco with highly scented or aromatic compounds may give rise to real injury to health. This matter becomes the more serious when we consider the large quantity of cheap and nasty cigarettes that are smoked by the small youth of the present day. A correspondent recently forwarded us some cigarettes which were described as having been made from best bird's-eye. They cost 1*s.* 10*d.* per 100, and, as might be expected, were excessively nasty, smelling powerfully of an aromatic substance of a totally different character to tobacco itself. Our correspondent said that they made himself and a friend "feel very queer," and we are not surprised. We are only surprised at his hardihood in risking the trial of such obviously under-priced tobacco. Still, this instance is instructive, and we have been prompted to consult some of those mysterious though useful books which are described to contain "several thousand receipts, covering the latest, most important, and most useful discoveries in chemical technology, and their practical application in the arts and the industries"—in other words, those books that deal with trade dodges, and we have been rewarded with some valuable, if not altogether encouraging, information. Here we find various formulæ for the improvement of inferior qualities of tobacco and for the removal of any disagreeable smell and taste that may characterise them. In these interesting operations we find that the use of the following articles is concerned: orris root, Tonquin bean, juniper berries, coriander seeds, storax, cascarilla bark, angelica root, cinnamon blossoms, badiane, cloves, saltpetre, cassia, glycerine, liquorice root, rosewood, sugar, bay leaves, walnut leaves, green oranges, oil of lemon, amber, vanilla, bergamot, nutmeg, balsam, cardamoms, cubebs, sassafras, galangal, calamus root, &c. It is not improbable that one or other of the substances in this really formidable list, especially if used in excess, would, when submitted to destructive distillation in the pipe or cigarette, give rise to volatile products of a much more injurious character than those due to the combustion

of pure, unscented tobacco. At any rate, it is probable that the objectionable effects described above were due to flavouring agents or to bad tobacco. We are aware, of course, that tobacco must to some extent be treated in order to be presented in a smokeable form, but need this process go any further than depriving the leaves of their stalk and moistening and pressing them prior to cutting? Of one thing we are confident, and that is that a large proportion of the smoking public would prefer to smoke pure, unsophisticated tobacco in preference to the stuff that is highly loaded with foreign flavouring substances. Tobacco leaves without any manufacturing process afford a pleasant and enjoyable enough smoking mixture that is infinitely superior to many manufactured kinds as long as specimens of various growths or of various degrees of strength are mixed in suitable proportion to meet individual requirements. It was the original leaf which Sir Walter Raleigh smoked, of which Charles Kingsley said "divine in a pipe, glorious in a hookah." Why cannot the public obtain the next best substitute—that is, an absolutely unsophisticated tobacco leaf, which has only been treated in order to facilitate its being cut up into suitable form?

FUNCTIONS OF THE LUMBAR CORD.

IN the Proceedings of the Royal Society there is an abstract of an interesting paper by Dr. Page May describing a series of investigations into the segmental representation of movements in the lumbar region of the mammalian spinal cord. The method mainly followed was that by excitation of nerve roots and also of the spinal cord, and as a means of controlling the observations with this method mechanical stimulation (pinching, &c.) was sometimes employed in examining the nerve roots. The dog and the monkey were the animals chiefly experimented upon, and in the dog the excitable area of the cord surface was found to be the postero-external column. Stimulation of Goll's column produced no movement except in the lower lumbar region, where that column is very small or absent, and where the effect was probably due to the stimulus directly affecting the fibres of the postero-external column. The movements, as a rule, were limited to the side stimulated, and movements in the lower limb could be produced by stimulation of Burdach's column from the upper border of the thirteenth dorsal segment to the lower border of the first sacral segment, and the areas, stimulation of which produced movements of limbs, arms, and tail, overlapped one another, the hip area, however, being nearer the cerebrum than the knee area and the knee area higher than the foot area. When the cord was transversely divided above the lumbar enlargement the movements were more easily elicited. It was also found that the point, stimulation of which gave movement of the tail, was placed internal to the point for the hamstrings, this again internal to that for the hip, while most external of all was that by stimulation of which movement of the side of the trunk was elicited. Stimulation of the nerve roots gave very interesting results. Stimulation of an anterior root gave, on the whole, a quick, powerful extension of the whole limb; excitation of the corresponding posterior root resulted in flexion of the whole limb. This result was quite constant, and by many facts it seems to be evident that the path along which the impulses pass, as evidenced by movement elicited in stimulating a certain posterior root, is directed towards a point *below* the level of that posterior root, and not, as might be supposed, in the same segment or above it. The same general results were obtained by stimulation of the spinal cord and nerve roots in the monkey. The area found excitable was the postero-external column, stimulation of which, from the thirteenth dorsal to the second sacral segment inclusive, produced lateral flexion of the spinal column, flexion and adduction of the hip, flexion of the knee, ankle, and toes, and movement of the tail and perineum, and peristalsis. And it was also quite definite that the area, stimulation of which produced movement of the tail, was nearer the middle line than that for the hamstrings, while this area was nearer the middle line than that for flexion at the hip, and so on. The same general effects as in the dog were obtained by stimulating the anterior and posterior nerve roots. The conclusions arrived at are: (1) that any reflex centre derives its chief afferent impulse from a nerve root entering the cord, as a rule, about two segments higher; (2) the fibres of the postero-external column are arranged in a definite order from within outwards, the innermost representing the most distal part of the tail; and (3) stimulation of anterior roots in the dog produces extension, of the posterior roots flexion of the limb as a resultant movement. In the monkey there is not this apparent antagonism, because stimulation of anterior roots brings out a differentiation of flexion and extension, although stimulation of the posterior root gives flexion alone. The paper, as will be seen, forms a valuable contribution to the physiology and anatomy of the spinal cord, and we await with interest the study of the results of similar methods applied to the investigation of the cervical and upper dorsal cord.

PLAGUE, PESTILENCE, AND FAMINE.

IT is a sad falling together of events that the sixtieth anniversary of Her Majesty's useful and beneficent reign should see her splendid Eastern Empire threatened so terribly and tried so sorely. "From plague, pestilence, and famine ..... Good Lord deliver us," is a sad appeal to accompany the universal prayer that is being said this year for the Queen's Most Excellent Majesty, and we feel certain that the kind heart of our Sovereign Lady must feel that this is so. More than a million and a half of our Indian fellow-subjects are in receipt of famine relief at the present time, and although the subscription that has been opened here is being nobly supported, it is inevitable that much terrible misery should go unalleviated. Upwards of £120,000 has been subscribed already (Thursday) and several provincial centres are imitating with successful generosity the movement inaugurated by the Lord Mayor of London. The cause needs no urging upon our readers. Famine and the ills that follow in its train do not require detailed description before their horrors can be comprehended. But much can be done by prompt and orderly action. Let our Indian Government be placed at once in possession of a large sum of ready money, and we know that all human means of arresting the march of evil will be at once employed.

SO-CALLED NON-POISONOUS DISINFECTANTS.

NOT a few cases have been recorded of late of death following upon the swallowing of tar acid mixtures described as non-poisonous. An important case was recently reported from Huddersfield in which it appears a woman took a large quantity of a compound called "germol," which is supplied by a Huddersfield firm of manufacturing chemists. On this occasion the "germol" was contained in a bottle marked sanitas. The evidence at the inquest led to the verdict that death was the result of asphyxia produced by corrosive poison contained in a disinfectant called crude "germol." "Germol," however, as we find from a small specimen submitted to us, is described on the label of the bottle as non-poisonous and for external use only. We have pointed out before that manufacturers are not justified in calling these fluids non-poisonous. It may be perfectly true that they have not the

same powerful poisonous action as carbolic acid, but still they are poisonous, as in the above instance, in moderately large doses, and therefore it would be more correct to describe them as less poisonous than carbolic acid. There are a great number of similar preparations of this kind in the market at the present time, all of which the public are led to infer are quite non-poisonous. They consist of an alkaline mixture of the phenol derivatives of coal tar. It seems to us that if carbolic acid is to be scheduled as a poison these preparations, which are of a kindred character, should be included, for we have already received sufficient evidence to justify such a course.

NATURAL AND ACQUIRED IMMUNITY.

THE natural immunity of many animals to certain diseases, even when the actual virus is injected, has long been known and various explanations have been given. Quite recently careful investigations have been carried out by MM. Calmette and Delarde in the Pasteur Institute at Lille. In their experiments they made use of the following poisons—viz., an animal virus, serpent's venom, and a vegetable poison, abrine, prepared by macerating jequirity seeds (Abrus precatorius) in water. They found that the immunity of pigs and hedgehogs to venom and of fowls and tortoises to abrine could not be due to the presence of antitoxins in the blood previously to inoculation, for the serum of the normal animals had no protective effect on susceptible animals, nor had it any neutralising effect on the poison when mixed with it outside the body before inoculation, in both these respects differing from serum containing antitoxins. They were also unable to discover any antitoxic substance in the brain, liver, spleen, or other organs of the normal animals. They hold, therefore, that the antitoxic serum is independent of immunity, since that may exist when no antitoxic properties are possessed by the serum. They attribute both kinds of immunity to special characters of the cells of the body.

THE SOCIETY OF PUBLIC ANALYSTS.

THE Society of Public Analysts has now been in existence some twenty-two years and the progress which it has made during that time is a fact upon which it may be warmly congratulated. Though it is an institution which seldom comes prominently before the public notice, yet it is none the less an important one in contributing work devoted to the public service. By means of its monthly publication, the *Analyst*, public analysts in all parts of the kingdom are brought into touch with new developments of fraud and are made acquainted with improved methods of analysis which must be employed in the difficult task of combating new tricks. Of late years the society has been engaged very closely on the question of reform in regard to the present Food and Drugs Act, and their work has been of the greatest possible assistance to those appointed by the Legislature to inquire into the subject, and so much so that practically the recent report of the Food Products Adulteration Committee proved to be in substantial agreement with a draft Bill which was approved and drawn up by the society before this committee commenced its inquiry. From the memorable days of THE LANCET Commission, when the Founder of this journal showed how awful was the nature and extent of adulteration going on, a marked change for the better in the quality of the food supply took place, an improvement which was subsequently subject to control by Act of Parliament. The Act of 1878 is still in force, and it is no matter for surprise that that Act is not found adequately to meet the requirements of food control in the present day. There is no doubt that though people may not be poisoned they are still cheated, not perhaps to the same appalling extent as heretofore, but still, according to the recent Local Government Board returns, "the nature, substance, and quality of the article demanded" by the public fall short to the extent of 10 per cent. of those examined. The proportion of adulteration, however, is probably a good deal higher and many offenders escape. This is due in a very large measure to certain unsatisfactory clauses in the Act with which recent legislative inquiry has been concerned with a view to amendment. This inquiry had its origin in the strong representations calling for repeal made by the Society of Public Analysts, and the good work it has done and is doing in this connexion bears a resemblance to that which the Founder of THE LANCET carried out when he instituted his successful crusade against food adulteration. As might be expected, the proposed new legislation directed towards the more satisfactory suppression of the adulteration of food and drugs, was a subject considerably in evidence in the speeches delivered at the twenty-second anniversary dinner of the society, which was held at the Criterion Restaurant on the 13th inst. The chair was occupied by the newly-elected President of the Society (Dr. Bernard Dyer), who has succeeded Dr. Thomas Stevenson. Among those present were Mr. Kearley, M.P., the Secretary of the Board of Agriculture (Mr. Elliott), the President of the Chemical Society (Mr. A. Vernon Harcourt, F.R.S.), the President of the Institute of Chemistry (Dr. Russell, F.R.S.), the President of the Pharmaceutical Society (Mr. Walter Hills), the Chairman of the London Section of the Society of Chemical Industry (Dr. Mansel), the President of the Institute of Brewing (Mr. A. C. Tanqueray), and Professor H. E. Armstrong, F.R.S. The toast, "The Houses of Parliament," was to have been responded to by the Earl of Winchilsea, but in his absence Mr. Kearley, M.P., made suitable acknowledgement, and he congratulated the society upon the admirable assistance it had lent to the members of the recent committee. Professor Thorpe, the Director of the Government Laboratories at Somerset House, replying for "The Various Government Departments," said it would be their endeavour as referees to work harmoniously with the public analysts. The toast of "Our Guests" was responded to in a humorous speech by Mr. J. Fletcher Moulton, Q.C. We observe that no mention occurs in the Queen's Speech of the proposed new legislation, and Mr. Kearley intends to move an amendment to the Address regretting that no intention is expressed in the Speech of promoting legislation in furtherance of the report of the Select Committee on Food Products, which disclosed the existence of unfair and nefarious competition with native food producers by foreigners and others, to the great detriment both of the commercial and agricultural interests of the people of the United Kingdom.

JUSTICES' MEDICINE.

A CASE tried recently at the Limerick Quarter Sessions before His Honour Judge Adams elicited some remarkable views from the bench upon infection, bacilli, and kindred subjects. The medical officer to the Croom Union sued a baker who supplied the workhouse with bread for a certain sum of money due for medical attendance. Among other matters, it came out in evidence that the medical officer had suspended the baker from supplying bread because of the presence of whooping-cough—or, as they call it there, chin cough—in his house. Not knowing any of the circumstances we do not propose to comment upon this action of the medical officer, but what we do take exception to are the remarks with which the judge is credited by the local paper. His Honour is reported as saying: "The doctors went on about the bacilli until they were perfectly mad in their fear. ..... Some time ago he had a physician on the table, and when he was handed the Bible he took it with great care, opened it, and kissed the inside

leaf. In reply to him the witness said he was afraid of microbes, vacilli, and micracocci (*sic*) (laughter). But he was not afraid of alcohol, for he was blind drunk and in the opinion of the court in a pronounced stage of delirium tremens at the time (laughter)." This sort of stuff may pass for humour in Ireland, but if so the deserved reputation of the Irish for humour must have been sadly over-estimated. Adams is, however, not an Irish name, and we should be obliged to his Honour to inform us why, if the physician was "blind drunk," he permitted him to be sworn? There is a very real danger in kissing a book or anything else that is constantly being kissed by the class of persons frequently to be found in law courts, and the equally impressive and binding Scotch or mediæval form of oath-taking is much preferable to the form at present in use.

THE REMOVAL OF INFECTIOUS CASES IN PUBLIC CONVEYANCES.

A REMARKABLE case has recently been investigated by the East Grinstead (Sussex) Urban Council concerning the removal, by the medical officer's orders, of cases of a diphtheritic nature to hospital in a public conveyance. The matter was brought to the notice of the Local Government Board, who forwarded the letter of complaint to the council. The medical officer reported that the cases in question, being those of membranous croup or diphtheria were removed to the cottage hospital in a cab, every child being enveloped in a clean blanket, and the distance travelled being only half a mile, so that, in his opinion, there was no risk of contaminating the cab. The committee came to the conclusion that in their opinion any case where there was the least suspicion of infection should not be removed in a public conveyance, but in the proper ambulance provided for the purpose. In this view the council concurred, and it was agreed to send the reports to the Local Government Board and to apply to the guardians for leave to use their ambulance in case of emergency.

CONGENITAL ABSENCE OF PATELLÆ.

CONGENITAL absence of both patellæ is a rare phenomenon, and a paper by Dr. A. T. Bristow of Brooklyn, in the *Medical News* of New York of Jan. 2nd of this year, is therefore of considerable interest, containing as it does a report of such a case illustrated with excellent skiagrams, and a *résumé* of the small amount of literature which exists on the subject. In the case under Dr. Bristow's care the child was brought to the Long Island Hospital in the summer of 1895. The patient was a boy, two and a half years old. He had a slight pes varus of the right side and a severe type of the deformity on the left which evidently called for operative interference. While examining the child for the purpose of correction Dr. Bristow's attention was attracted to the ease with which a luxation of the knee could be produced. Indeed, at first the peculiar crack with which the dislocation occurred most unpleasantly suggested a fracture. Closer inspection revealed the fact that the knee joint on each side immediately became dislocated on bringing the axes of the femur and tibia into line, and that the bones could be displaced in any direction almost at will. As the joint looked peculiarly prominent the condyles were examined, and both patellæ were found to be absent. The tendon of the quadriceps, instead of being thick and strong, was very thin, and was spread out over the front of the joint, seeming to be attached in part to the condyles of the femur, as well as to the fibula and tibia. There had been no attempt on the part of nature to supply a patella. There have been cases reported where this bone consisted of a rudimentary cartilage, but there was nothing of the sort to be found by palpation in this case. The most complete account of the cases reported may be found in a paper by Hartigan in the *National Medical Review*, 1879, vol. i., p. 92, but other cases have since been published. In all the cases on record there seems to have been an element of spasm or a contracture of the quadriceps, as it always required more force to bring the limb from its position of extreme anterior flexion backward during the first part of the arc than the last, and much flexion of the limb, or lateral motion, was painful. In many of the cases there seems to have been a nervous element present as a factor in producing the accompanying peculiar deformity in these patients; but it is possible that this was reflex and in the direction of protecting the joint, for the synovial surface would be most exposed in extreme flexion and best protected in anterior flexion. All the cases, without exception, seem to have been subject to other developmental errors, a rule to which the case recorded by Dr. Bristow was no exception, as the patient had a varus on both sides. The skiagrams showed that the tibia on the right side was dislocated outward and backward, with a rotation of the femur inward and the tibia outward. The bones were much more closely approximated in this limb than on the left side, as is evidenced by the skiagram. The inter-condyloid notch on the left side seems much more marked than on the right and the profile of the tibial joint line is more curved.

THE PORTSMOUTH ASYLUM MEDICAL STAFF.

AT the meeting of the Portsmouth Town Council a reference was made to the medical staff of the asylum, it being mentioned that an assistant medical officer had been appointed at a salary of £100 a year and the asylum committee recommended a third at £70. Mr. Emmett congratulated the committee especially on having obtained the services of a qualified medical man with eight years' previous experience at £100 a year. He said it was disgraceful to ask a professional man to accept such a salary, and added that he hoped the committee would think it wise to revise their salaries, for there was a vast difference between £100 with eight years' experience and £600 with no experience at all. On an alderman protesting and saying that the officer got board, lodgings, and washing as well, Mr. Emmett quoted from THE LANCET similar appointments where the sum of £225 was offered. However, nothing was done, the council probably consoling themselves with the suggestions that the place was really worth £250 a year, that the salary was a "progressive" one—we should have thought it decidedly "moderate"—that it would be increased in six months, and that there were seven candidates for the post.

THE MARRIAGE OF FEMALE EPILEPTICS.

IN an instructive note in the *Phonographic Record of Clinical Teaching* Dr. Gowers lays down rules for guidance when the medical practitioner's opinion is sought respecting the marriage of an epileptic female. Commencing with the proviso that the medical man must not decide the question, but content himself with placing before the patient the materials from which a decision can be reached, Dr. Gowers says that to the patient herself marriage and even pregnancy will make little difference, whilst the man who aspires to the hand of an epileptic lady must look to the severity of the disease and the extent to which it threatens mental powers, and must decide for himself whether he will inflict upon himself a wife with such an infirmity. The important question is the influence exerted on future children, and on this the family history, rather than the clinical aspects of the case, will throw most light. In cases which are the result of accidental lesion of the brain, and which are characterised by the severity of the initial convulsions, by their frequent one-sidedness, and by the absence of hereditary taint, fears of inheritance are groundless; but if epilepsy or insanity can be traced in ancestors or relatives the probability is very great that some of the future children will

have some neurotic affection. If there are six children the chances are against the escape of all, though at the same time the chances are considerably against any individual child suffering. The stronger the hereditary taint the more likelihood there is of its transmission. The well-being of the community would preclude such marriages, but the well-being of society seldom influences the conduct of the individual; and Dr. Gowers has to confess that in most cases submitted for an opinion the devoted couple take the risks and marry.

THE MUNIFICENCE OF BARONESS HIRSCH.

As the daily press has already mentioned, the Baroness Hirsch has given £30,000 to found a hospital in England for phthisical children. This bequest is not only generous, but, eminently sensible and practical. The scheme as at present proposed is as follows. A hospital is to be built by the sea for the reception of three or four hundred children, an endowed fund supplied, and a convalescent home to be built in addition. This is an admirable scheme, especially if, as we hope is the case, the children are to be housed in separate blocks, containing not more than fifty beds respectively. Pulmonary phthisis is pre-eminently a disease which requires for its treatment fresh air and sunlight, and these two factors are impossible of attainment in large towns. It is very far from our purpose to disparage the well-directed work of the Brompton Hospital, but we are sure its work would be even more valuable if the town house could be used mainly as a feeder for sundry country establishments, for besides the benefit to the patients themselves there would be a diminution in the risk of spreading tuberculous infection, which always must exist when tuberculous patients are aggregated together in urban dwellings. We earnestly hope that this noble example of the Baroness Hirsch may be followed by others who are rich in this world's goods, and that other hospitals for the treatment of convalescent patients may be established in suitable situations.

AUTOPLASTY OF THE PREPUCE AMONG THE ANCIENT HEBREWS.

WHEN Christianity became paramount in Syria the Jews who adhered to their pristine customs were exposed to grievous persecution. The following example of the shifts they were put to in order to conceal their identity is related by Dr. Beugnies of Givet in his work on Circumcision in Palestine, and will be found of interest, not only from an historical, but also from a surgical point of view. "While the Grecian dynasty was supreme at Antioch circumcision went through a crisis which may be described as epic. Antiochus Epiphanes formally forbade the practice with regard to the newly born under pain of death to both mothers and offspring, and at least two women convicted of disobeying the royal edict were cast from the summit of the city ramparts with their infants at their breasts. Numbers of Israelites, anxious to propitiate the good graces of their sovereign master, did not hesitate to attempt the re-construction of their ablated foreskins — *sibi præputia fecerunt*. By this we should probably understand that they ceased the mutilation of their male children, for autoplasty of the prepuce is such a delicate operation that before we can believe in its performance at that early date the most ample proof is necessary." Curiously enough, some time after the publication of his book Dr. Beugnies came across the required proof in a short note which he attributes to Broca. According to this authority, rehabilitation of an excised prepuce was quite a common operation in ancient surgery. *Verpi* in Rome were specially taxed, besides being excluded from the privileges of citizenship, and in order to escape from these disabilities they were willing to submit to the following plastic procedure. In the first place the surgeon made a circular incision round the body of the penis at a suitable distance from the end of that organ and implicating the skin alone. He next detached the latter from its subjacent tissues to within a short distance of the corona, and then completed the operation by everting the ring of skin over the exposed glans, where it formed a more or less perfect prepuce. A highly inconvenient cicatrix was naturally the result of this attempt to remedy man's interference with nature, but apparently the patients decided to put up with this disadvantage for the sake of the substantial benefits that otherwise accrued to them.

THE MILROY LECTURES FOR 1898.

DR. MONCKTON COPEMAN has, we hear, been appointed Milroy Lecturer for the year 1898, and the subject selected for the lectures is the "Natural History of Vaccinia and Variola." The subject is one which seems to us to be an exceptionally happy one for 1898, the year which celebrates the centenary of the publication of Edward Jenner's "Inquiry into the Cause and Effects of the Variolæ Vaccinæ ....." Dr. Copeman is especially well qualified to deal with matters relating to vaccinia, and his valuable researches into the effects of storing vaccine lymph in glycerine are likely to have a very far-reaching influence on the future methods of lymph storage in this country. We shall doubtless have, too, from Dr. Copeman in the Milroy Lectures a full account of his interesting investigations into the bacteriology of variola.

THE REGISTRATION OF NURSE CHILDREN.

THE Infant Life Protection Act is not so stringent a measure that any legal safeguards for its application can be dispensed with. Chief among these is the obligation to register which is binding upon the custodians of children. In this requirement we possess the only available guarantee against mismanagement or wilful misconduct on the part of such caretakers. A case recently investigated in the North London Police-court at the instance of the London County Council is of interest, not because misconduct was shown to exist, but on account of a remarkable connexion between the most respectable references, an apparently complete oblivion all round as to the requirements of the law in such cases, and, finally, an abnormally high infant mortality. Martha Taylor, a widow, had had under her care since 1892 fourteen infants, eight of whom had died. She was certified to be respectable, was well known in her neighbourhood, but though registrable was not registered and was professedly unaware that she should be. No neglect or ill-usage was proved against her, but it is worth noting that her weekly allowance for nursing each infant and for her own sustenance was but four shillings. She was at last obliged to seek parish relief, and further inquiries led to the investigation referred to. The children, as a rule, were derived from the "rescue homes" of the Salvation Army and were usually illegitimate. Perhaps the constitutional weaknesses which often come of an unknown parentage had something to do with the deaths which occurred among them; but no suggestion of this kind has been mentioned. Other causes at least as powerful must have been at work in the home of a very poor widow struggling to support an infant and herself on four shillings a week. Such a pittance was clearly inadequate for the performance of the duties required of her. Her capacity as a nurse was not discussed at her examination, but we may safely conclude that it was not of the highest order. From whatever point we regard this incident it can hardly be doubted that the introduction of registration and inspection at an earlier stage of her nursing history would have materially improved the prospects of

eight children. Not the least singular circumstance about this case is the facility with which the responsible officials of the Salvation Army seem to have accepted as a guardian for their rescued children an unregistered, and therefore a disqualified, person. However fair their intentions, the result is not flattering to their discrimination.

THE HEALTH OF THE QUEEN.

A PARAGRAPH with the above heading and bearing the sub-heading "alarming rumour" has recently appeared in certain newspapers suggesting that Her Majesty is seriously unwell. We are glad to be able to announce on the best authority that the statement in question is absolutely untrue. Her Majesty is in excellent health and her general condition gives no cause for special anxiety on the part of her medical attendants apart from that which naturally attaches to every individual of advanced age. It is most regrettable that circulation should be given to such ridiculous rumours as that to which we refer.

DINNER TO MR. J. H. RUTHERGLEN.

IN recognition of his active and successful exertions which resulted in the passing of the Poor-law Officers Superannuation Act, 1896, Mr. J. H. Rutherglen, chairman of the Superannuation Committee of the Poor-law service, will be entertained at a public dinner on Wednesday, Jan. 27th. Lord Glenesk has consented to preside, and it is to be hoped that the committee which is arranging this well-merited tribute to Mr. Rutherglen's talents for organisation and persuasion will be rewarded by a good attendance of members of every branch of the service and of both sexes.

THE WATER-SUPPLY OF TORQUAY.

THE corporation of Torquay are contemplating a step which might well be followed by the municipal authorities of other places occupying a similar position. For some time they have been considering the question of not only augmenting the supply of water to Torquay, but also of bringing the supply to a standard of higher quality and character. To do this it is proposed to apply for an Act of Parliament for powers to purchase the water-shed from which the water of the town is derived so as to place the administration from beginning to end under the entire control of the corporation. It is believed that the acquirement of this water area, which is situated on a projection of Dartmoor, will provide for an abundant supply of water, not only for existing requirements, but for future demands. Amongst the principal objects for securing the control of this area is the vitally important one of placing the corporation in a position to eliminate all likely sources of contamination. We are glad to find that at the statutory meeting which was held in Torquay on the 15th inst. the council received the sanction of by far the greater majority of those in attendance, so that the necessary way has been cleared for applying for an Act of Parliament.

THE EDUCATION OF CHILDREN OF DEFECTIVE INTELLECT.

THE Lord President of the Council has appointed a Committee to report upon the Education of Children of Defective Intellect. The committee is constituted as follows:—The Rev. T. W. Sharpe, C.B., H.M. Senior Chief Inspector of Schools (chairman); Mr. H. F. Pooley, Senior Examiner, Education Department; Mr. A. W. Newton, H.M. Inspector of Schools; Dr. Shuttleworth, late Medical Superintendent, Royal Albert Asylum for Idiots and Imbeciles; Dr. W. R. Smith, Medical Officer of the London School Board; Mrs. Burgwin, Superintendent of Schools for Special Instruction under the London School Board; and Miss Townsend, Member of the Council of the Association for Promoting the Welfare of the Feeble-minded. Mr. H. W. Orange, Examiner, Education Department, will act as secretary to the committee. The terms of reference to the committee are as follows:—To inquire into the existing systems for the education of feeble-minded and defective children not under the charge of guardians, and not idiots or imbeciles, and to advise as to any changes, either with or without legislation, that may be desirable. To report particularly upon the best practical means for discriminating, on the one hand, between the educable and non-educable classes of feeble-minded and defective children, and, on the other hand, between those children who may properly be taught in ordinary elementary schools by ordinary methods and those who should be taught in special schools. To inquire and report as to the provision of suitable elementary education for epileptic children and to advise as to any changes that may be desirable.

THE MEDICO-LEGAL VALUE OF ANTIVENINE IN INDIA.

PROFESSOR HANKIN, director of the bateriological laboratory at Agra, recently had submitted to him cloths which had been removed from the intestines of some cows which had died, apparently, from some acute poisoning. Chemical analysis being impracticable, Professor Hankin macerated the cloths and concentrated the solution obtained. Part of this was inoculated under the skin of a rabbit, which died in less than an hour with every symptom of poisoning by serpent venom. The rest of the fluid obtained from the cloths was then mixed with a small quantity of Calmette's "sérum antivenimeux" and injected into a second rabbit, which showed no symptoms whatever. If this observation proves to be corroborated by further trials, the knowledge that poisoning by serpent venom can be detected by scientific methods may check the use of this agent in India, where it appears to be frequently employed to poison animals. Another agent frequently employed for this purpose is abrine, the albuminoid substance contained in jequirity seeds. A serum antitoxic to abrine has been prepared by Dr. Calmette of the Pasteur Institute at Lille, whose researches on serpent venom are so well known, and it is possible that this also may be of use in finding the exact poison that has been employed and bringing home crime to guilty parties. It is an interesting example of the unlooked-for practical results which often spring from purely scientific laboratory experiments. The whole aniline industry, for instance, arose from the incidental discovery of one of the aniline colours by Dr. W. H. Perkin when carrying out a patient laboratory research in the unsuccessful endeavour to prepare quinine synthetically.

GERMAN COURTESY TOWARDS ENGLISH INVESTIGATORS.

IT would perhaps be hardly correct to say that science recognises no nationality, for the simple reason that friendly international competition has been instrumental in bringing about scientific progress. There is, however, about all honest investigators a feeling in matters of this nature that progress is best attained by freedom of discussion and by mutual help. This spirit has always been especially well marked in Germany, and we hear with pleasure that Dr. Thorne Thorne, the principal medical officer of the Local Government Board, accompanied by Dr. Monckton Copeman, one of the medical inspectors, while recently investigating the methods of lymph production, storage, and distribution in Germany, have been afforded not only every facility for prosecuting their inquiries, but also have received at the hands of the nation's representatives the most generous hospitality. Germany has nothing to fear in revealing the very scientific

methods adopted in this particular, but it is nevertheless very gratifying to learn at the present time of representatives from this country being so graciously received. We can only trust that when investigators from Germany next visit our shores on anything like a similar mission that equal facilities and hospitality will be extended to them. We believe, too, that in France and Belgium Dr. Thorne Thorne and Dr. Copeman were accorded every opportunity for observing the methods of lymph production. The result of this mission is not yet known, but it is quite certain that no one could study the excellent practices in vogue in Germany without coming to the conclusion that in England we have yet much to learn in the matter of lymph production and collection; and we shall be much surprised if this inspection of Continental methods does not lead to very material alterations in the production and storage of lymph in this country.

WHILE considerable satisfaction is expressed at the fact of a promise being given in the address from the Throne that a Bill will be submitted to Parliament to improve the arrangements for water-supply in the metropolis, and a Bill also to make better provision for the compensation of workpeople who suffer from accidents in the course of their employment, yet it is a matter of surprise and some disappointment that there is no indication of any immediate steps being taken in regard to the recommendations of the Food Products Adulteration Committee, whose difficult task was finished and whose report was printed some months ago. We understand that this omission will form the basis of an amendment by Mr. Kearley, M.P.

ON Wednesday last, Jan. 20th, Lord Lister was presented in Queen's College, Belfast, with an address from the Members of the North of Ireland Branch of the British Medical Association. The occasion was the opening of the new physiological, pathological, and bacteriological laboratories. In an address which Lord Lister delivered he dwelt upon the advantages which would accrue to medical practitioners by the establishment of central stations where they could send specimens for examination and report.

WE have received a circular from the Guy's Hospital Out-Nursing Fund asking for pecuniary support. The Out-Nursing Fund is a scheme for the nursing at their own homes of convalescent patients from the wards and out-patient department of the hospital. The honorary secretary, who will receive subscriptions and give all information, is Mr. C. L. Josephs, of Broxbourne, Herts.

THE Secretary-General of the Twelfth International Congress of Medicine to be held in Moscow next August has announced that June 1st has been fixed as the last day upon which particulars, titles, and abstracts of communications to be read to the Congress can be received by the executive committee.

IT is with great regret that we announce the death of Dr. Edward Ballard, F.R.S., late medical inspector of the Local Government Board, at his residence, Ravenscroft Park, High Barnet, on Tuesday morning last. We must defer till next week a full notice of his useful and distinguished career.

THE Queen has re-nominated Mr. William Moore, M.D.Dub., Physician in Ordinary to Her Majesty in Ireland, to be, for five years from the 25th inst., a Member of the General Council of Medical Education and Registration of the United Kingdom, for Ireland.

THERE will be a public meeting at the Drill Hall, Chenies-street, W.C., on Thursday, Jan. 28th, at 8.15 P.M., to direct public attention to the serious financial condition of University College Hospital. The Duke of Bedford will preside.

AT the general meeting of the Royal Meteorological Society held on the 20th inst. Dr. Theodore Williams, late President, and Dr. Robert Barnes, late Vice-President, were elected members of the Council of the Society.

THE Duke of Connaught will preside at the Biennial Festival of the National Hospital for the Paralysed and Epileptic (Albany Memorial), Queen-square, Bloomsbury, on March 24th.

LORD GLENESK will take the chair at the annual dinner of King's College Hospital, to be held on May 14th, in the Whitehall Rooms of the Hôtel Métropole.

WE have received the Army Medical Report for 1895, but are compelled to defer notice of it until next week.

IRISH POOR-LAW MEDICAL RELIEF SYSTEM: ITS ORGANISATION AND ADMINISTRATION.

BY PATRICK LETTERS, M.D. ABERD., D.S.M. IREL.,
MEDICAL ATTENDANT TO THE STAFF OF THE ANGLO-AMERICAN TELEGRAPH COMPANY, VALENTIA, IRELAND.

THE subject of Irish Poor-law Reform is one to which a large share of public attention has been recently directed, both in the lay press and in medical journals. The exposure of grave irregularities, or, as some of the more pithy writers put it, of barbarities and abominations, has led to the formation of the Irish Workhouse Reform Association—an influential organisation which has set itself to the herculean work of rectifying long-established abuses. Enough has been disclosed to justify this effort to ameliorate the lot of the poor who are forced to seek the shelter of these institutions, and no philanthropist can withhold his sympathy from the movement. It is not my purpose, however, to discuss the mismanagement of Irish workhouses, but to direct attention to that branch of the Poor-law system administered directly by the medical profession, the medical relief department of the Irish Poor-law service. This I purpose discussing from several standpoints, thus: from that of a medical man unconnected, but thoroughly conversant, with the service; from that of the sick poor directly affected by it; and from that of the public, whose interest in it should be a practical and profound one. To understand fully the case of the Irish poor-law medical officer one must live in Ireland and learn by observation the conditions under which official work is carried out, the whole surroundings of the medical man being so unlike those existing in the other divisions of the kingdom.

The Irish Poor-Law Medical Relief Organisation is planned upon a comprehensive basis. The country is mapped out into 159 unions, each of which is sub-divided into a varying number of dispensary districts, usually from four to six, in accordance with the extent of the union. The number of these dispensary districts in Ireland is 721, and their distribution in the provinces is, for Ulster, 214; Munster, 206; Leinster, 202; and Connaught, 99. The workhouse is a central institution, receiving its inmates from the different districts. Besides affording an asylum to the aged and destitute it contains wards for the treatment of medical and surgical cases, also for infectious fevers when a separate isolation hospital is not provided, and there is usually some accommodation for lunatics and idiots. Each dispensary district is officered by a separate medical man. The workhouse medical attendant may, and often

does, in addition, hold an appointment to one of the dispensary districts, and in large urban workhouses a resident and several visiting medical officers are required. The total number of medical officers in the poor-law service is 813, distributed thus: in Ulster, 238; Munster, 232; Leinster, 229; and Connaught, 114. The sanitary appointments under the Public Health (Ireland) Act are held by the dispensary medical men, who are medical officers of health for their respective districts. The workhouse medical officer is usually, though not necessarily, the consulting or superintendent medical officer of health for the whole union. The dispensary medical officer's work may be estimated by striking average figures for the whole country embracing the following points: (*a*) population, (*b*) area, and (*c*) valuation. Calculated upon official figures the population of an Irish dispensary district is found to be 6525; the area in acres 28,194, equivalent to 44 square miles; and the valuation, in round numbers, £20,000, or exactly £19,658. If the four provinces be separately analysed certain differences are brought out which it is well to remember when estimating to what degree the existing system has succeeded, or is still capable of fulfilling the orginal object of relieving the sick poor on the one hand, and of dealing justly by the medical officers on the other. It is found by calculating averages for the four provinces that the population of a dispensary district in Ulster is 7569; in Munster, 5691; in Leinster, 5880; and in Connaught 7321. The areas of dispensary districts average—in Ulster, 24,870 acres; Munster, 28 809; Leinster, 23 944; and Connaught, 42,769. To enable the extent to be better grasped these acreage areas reduced to square miles give for Ulster, 39; Munster, 45; Leinster, 37; and Connaught, 67. The next set of figures is the valuation, from which approximately the resources on which a dispensary medical man has to depend to supplement his official salary may be deduced. The average valuation of an Ulster district is found to be £21,343; and of a Munster one, £16,616. In Leinster the figure stands at £23,687; and in Connaught at £13,823.

I now come to the consideration of the official figures showing medical relief work accomplished. This comes under two heads—(*a*) medical attendances and advice at dispensaries, and (*b*) visits to patients at their own homes. The same form of ticket authorises all attendances, advice, or visits, but that requiring attendance at the patient's own residence is printed in red type for distinction, and the familiar "red ticket" is always understood to imply some urgency and that the patient is unable to appear personally at the dispensary station. The medical officer's attendances at the dispensary are at appointed and fixed hours and days, usually twice or thrice weekly where the district contains one station only, or once or twice weekly at each station where for the convenience of the poor two stations have been fixed in the district. Before concluding I shall discuss the alleged abuse of these red tickets, and shall advert to a recent interview between the Chief Secretary for Ireland and a deputation from the Irish Medical Association, representative of the dispensary medical officers, the object being to obtain the redress of certain grievances under which the Irish Poor-law medical officers are said to suffer. In the meantime I must supply figures for medical relief work done. Taking all Ireland again into account and striking an average each dispensary medical man in one year affords medical relief to some 805 cases, not necessarily separate patients, but to that number of distinct illnesses treated to a conclusion. Some of these will give the practitioners no further trouble than a single attendance for advice and medicine at the dispensary station, others will attend on several occasions, while the visits at the patients' homes will be solitary, few, or several, in accordance with the nature of the case, the medical man's responsibility not ceasing until the termination of the case either in recovery, removal to hospital, death, or failure of the patient to attend at the dispensary station, if able to do so. As red tickets form the really laborious part of a medical officer's duty by necessitating often long journeys through bogs and across mountains, I will confine myself to these, leaving the amount of advice-giving and medicine-compounding work at the dispensaries to be understood. Well, taking the average again for the whole country, each dispensary medical officer treats 243 cases annually under red tickets. In Ulster the average is 291; in Munster, 228; in Leinster, 286; and in Connaught, 152. The marked difference between Connaught and Leinster does not prove healthier conditions to prevail in the former province than the latter—it simply indicates the fact that red tickets are issued with greater restriction in Connaught.

[Dr. Letters here criticises the association of poor-law and public health duties in the same individual. He continues:]

What, then, are the grievances which the Irish dispensary medical officers seek to have redressed? As formulated by a representative medical deputation which recently waited on the Chief Secretary for Ireland, they want all abuses of the Poor-law medical relief system to be redressed, they ask pensions to be provided for retiring Poor-law officers, and they call for an improvement of the existing salaries. Mr. Balfour replied to all the points brought under his notice, but failed to satisfy the deputation. In regard to abuses to be redressed, it is worthy of remark that some of the most flagrant of these were not mentioned, and the Chief Secretary's statement, therefore, was limited to the points brought forward to show the injustice and hardship which, according to the dispensary medical officers, operate against them. Replying to the application for increased salaries Mr. Balfour adverted to the fact that the average income of dispensary practitioners from official sources amounted to £171 annually, but at the same time admitted that even were this supplemented by reasonable earnings from private practice the income would be insufficient to maintain an officer and his family in respectability. The income from private practice of dispensary medical men in Ireland is, of course, unknown, but must vary considerably in urban and rural districts as well as in different counties. It may be assumed, on the whole, that it falls short of that of the general practitioner in wealthy and populous England. To make things level the Irish practitioner is obliged to charge higher professional fees than his English *confrère*. Owing to the practical monopoly which his appointment secures him in his own district his demands are not questioned if made upon a moderate scale. Should he, however, attempt in any rural district to enforce the proverbial guinea fee, that can only be complied with in exceptional cases of emergency and indirectly leads to an abuse of the red ticket system, for which there is no one to blame but the medical man himself.

Let us now turn to the red tickets to see in what ways they are abused. They are said to be indiscriminately issued, that books of tickets are signed by the authorised person, but left with shop assistants and others to fill up, who in turn distribute them regardless of the suitability of the applicant for relief. In some cases the tickets are not even signed; in others they are issued without any request from the patient or even against his wish. It is further complained that house-owners issue these tickets unsolicited in order to clear out a case of infectious disease from the premises. It is again said that tickets are issued, not for medical relief, but as an indirect means of procuring out-door relief, &c., for applicants who are quite able to pay ordinary fees, and who are perhaps at the time actually paying fees to another practitioner. Another example of alleged abuse is the issue of tickets to persons dead or dying, when treatment would be useless, and simply to procure a death certificate. The list of irregularities concludes with a statement that tickets are sometimes served upon medical officers by post, in contravention of the regulations. This is the red ticket grievance, as formulated by a letter from the Irish Medical Association to the Local Government Board for Ireland, dated July 31st, 1896.

It will occur at once to those of my readers who have made a special study of State medicine that the tabulated statement of red-ticket grievances is not so solid as it appears. The primary object of the Medical Charities Act, as set out in the preamble to the Act itself, is to provide for the better distribution, support, and management of medical charities in Ireland and to amend an Act of the eleventh year of Her Majesty to provide for the execution of the laws for the relief of the poor in Ireland. It is irrational to expect the Chief Secretary to shut his eyes to his primary duty to the poor in the administration of this Act. It is equally absurd to expect him to forget that which as a statesman he must instinctively feel—viz., that in all such questions he must weigh carefully how much of the country's interests are involved and affected thereby.

Let us just take a glance at the red-ticket abuses from a public health point of view and perhaps we may find some justification for Mr. Balfour's attitude. It is alleged that tickets are issued in the case of dead and dying persons. An assumption is here made that as treatment would be useless it is an abuse to issue a ticket. On such

a question I do not hesitate to maintain an opposite opinion. Uncertified deaths must be expunged from our national registers as a serious evil, and medical statisticians everywhere should rigidly oppose anything tending to perpetuate these blank records. Rather, therefore, than that this entry should appear in registration, "Death not certified—no medical attendant," let the red ticket be abused—the end justifies the means. It cannot be a frequent occurrence for a house-owner to issue a ticket irregularly for the sole purpose of clearing out an infectious case from his premises, and when it does occur I should justify it on the ground of public health. It is a smaller evil to inflict a trifling injustice on a dispensary medical man than to kindle a flame of epidemic disease in the district. I fail to see the slightest hardship in the service of a red ticket by post. The spirit of the Act is to offer every facility for attendance on the poor, and the regulations properly specify that red tickets may be served upon the practitioner at all times and places. To interfere with this would be to cut at the root of the Act, and the more general employment of rural postmen in Ireland to convey dispensary messages would be advantageous to all parties, and I should think oftentimes most convenient for the medical man. I should regard it as an abuse of red tickets when they are issued for the sole purpose of obtaining out-door relief and without a medical reason. If this form of abuse were at all common I presume more would be heard about it, as dispensary medical officers in such cases, by an appeal to the dispensary committee of management, could, and would, expose the fraud sufficiently to have it abated. There is another form of abuse not mentioned in the letter of the association, but which occasionally occurs. It is this: a dispensary medical man is unfortunate enough to incur the hostility of an unscrupulous member of his committee, who, through pure malice and under cover of his powers, may issue tickets entailing quite unnecessary journeys upon the medical officer. The occurrence is, I should think, exceedingly rare, but when red tickets are abused in this manner the practitioner becomes at once an object of well-merited sympathy—he has a real grievance.

[Dr. Letters here gives a very unflattering description of the manner in which elections to Irish workhouse and dispensary appointments are conducted. "There are more serious irregularities and abuses in connexion with dispensary election contests in Ireland than in any other department of public service into which competition enters." "The electoral bodies are—for workhouse appointments the board of guardians, which have usually from thirty to fifty members, and for dispensaries the dispensary committees, annually elected by the guardians." He continues:]

The Local Government Board cannot but be cognizant of the main features of these evils, and ought to be able, with their powers, to apply a remedy. It may be that the magnitude of the evil is not understood, and yet a strong case exists for interposition of some kind. It is well known that by-laws are often more determinate and prescribe rules with more binding effect than a general statute. Under the Public Health Act convictions are more readily obtained for offences against by-laws, which introduce a question of fact only, than under the sections of the Act itself. Similarly, were the Irish Local Government Board, by departmental regulation, to try the experiment of having some practical share in these elections, the interests of the sick poor and of the general public would be alike advanced, scandals and exhibitions degrading to the medical profession would be prevented, the whole tone and status of the Poor-law medical service would be improved and elevated, and the elected men would enter on their duties with a fuller measure of public confidence than men appointed without regard to professional merit.

It may be felt that this article is incomplete without the offer of something definite and specific in the way of remedy. As a ten years' observer of the working of the Irish Poor-law medical service I feel quite safe of my position in directing professional attention to these defects in its administration, but I would not feel equally sure of the propriety of pressing forward my own individual conclusions as to the correct line of reform. That I have not been a personal witness of the system without coming to definite well-digested ideas, both as to the best remedies to apply and as to the most prudent method of their application, may be inferred. This does not, however, undo the fact that my conclusions are only those of an individual, nor would it entitle me to usurp functions which others are officially commissioned to discharge. The Local Government Board for Ireland has supreme control over the service. Its President, the Chief Secretary to the Lord-Lieutenant of Ireland, is not a minister of health, but he need not go outside the department for any assistance or direction in medical administration. An experienced medical commissioner and a staff of efficient medical inspectors are at his command.

THE JENNER CENTENARY IN RUSSIA.

THE commemorative meeting of the Russian National Health Society in honour of Jenner and the hundreth anniversary of his great discovery was, it may be remembered, to have been held in May last. The Coronation of the Emperor in that month caused the postponement of the celebration until October, and various other causes led to its still further postponement, so that it was not until Sunday, Dec. 22nd, Old Style (Jan. 3rd), that it was finally held. These successive delays, while they were unfortunate from one point of view, had the advantage of allowing the society plenty of time for preparation and of enabling it to gather from all quarters of the earth an exceptionally interesting and representative collection of objects, which for the present remain on view to the public in what is called the "Vaccination Exhibition." The name of Jenner, it will be noticed, has dropped out of the name of the exhibition; but the man himself is very much *en évidence* on the walls and in the glass cases in the Medical Department of the Ministry of the Interior (where the exhibition is held), and the commemorative meeting was one prolonged eulogy of our famous fellow-countryman. That meeting, which was held in the hall of the Medical Department, was a most enthusiastic one. The hall was effectively draped and decorated with palms and other plants. As is customary at all public functions in Russia, busts of the Imperial family occupied prominent positions, but the post of honour was given to a bust of Edward Jenner, the hero of the day. This bust was modelled by a young Russian sculptor from portraits of Jenner, and he has caught with great success the characteristics of his features as they have been handed down to us by Lawrence, Northcote, Smith, and others. At two o'clock the Grand Duke Paul Alexandrovitch, who is honorary president of the National Health Society, entered the hall, while the band played the National Anthem. With him came the Prince and Princess of Oldenburg, two Ministers of State, M. Durnovo, the President of the Committee of Ministers, and M. Goremuikin, the Minister of the Interior, and several other high officials and representatives of medical and scientific institutions who were the guests of the society for the occasion.

After a brief speech by the Grand Duke, who presided over the meeting, Dr. Kudrin, acting president of the society, drew an interesting picture of the change which Jenner's introduction of vaccination had wrought on the incidence of small-pox in Russia. In the course of his speech he said that in the last century, when the population of the country was only 40,000,000, the number of deaths from small-pox each year was at least 200,000. Certain tribes in Siberia had been completely killed off by the disease. He closed his speech by a tribute of praise to Dr. Hubert, who had proposed and organised the present meeting and exhibition, and to whom, in conjunction with Dr. Ragozin, the Director of the Medical Department, the success of both was entirely due.

The next speech was an eloquent eulogium of Jenner pronounced by Dr. Lukianof, the Director of the Imperial Institute of Experimental Medicine (formerly the Oldenburg Institute). The speaker dwelt on the immense significance of Jenner's work. Not only had it saved millions of lives in these hundred years, but it had been of incalculable scientific value. He was the model scientific worker. By his thirty years' careful experimental work he had incontrovertibly proved the value of vaccination. Long before bacteriology was known he had established the principle of preventive inoculation and had thus rendered possible the scientific advances of the present century in this great branch of medicine. He led the way which Pasteur and others had so successfully followed in investigating the subject of immunity.

When the applause and cheers with which this speech was received had subsided Dr. Kormillo ascended the rostrum and gave a historical sketch of the introduction and gradual

spread of vaccination in Russia during the last hundred years.

The results of the competition for the prizes offered by the society were announced by Dr. Lukianof. A large gold medal was awarded to Dr. Alexandre Layer of Bordeaux, the author of an essay entitled "A la Mémoire d' E. Jenner"; another large gold medal to Dr. Miller, the principal physician to the Foundling Hospital in Moscow, for his handbook on Vaccination; a small gold medal to Dr. Glagolef, a *zemski vratch* (or medical officer of health); and silver medals to Dr. Deloble and M. Kazet, a veterinary surgeon. Of the thirty-two works sent in for competition the majority were of course in Russian; of essays in other languages the English were the most numerous, but unfortunately none of these gained a medal. The society's gold medal and sum of 1000 roubles which had been offered for the best work sent in were not awarded.

The representatives of a number of Russian medical societies and institutions then either spoke or read addresses of congratulation and the meeting was closed by a short speech from the Grand Duke Paul. Over forty letters and telegrams were received from Russia and abroad.

THE EXHIBITION.

A very striking and instructive collection of objects has been brought together and is now open free to the public in the rooms of the Medical Department. Not only is it interesting from a scientific point of view, but the opportunity has not been lost of turning to good account the educational influence of such an exhibition. A number of large diagrams, tables, and maps have been prepared on such a scale that he who runs may read, showing the great influence which the introduction of vaccination has had in diminishing small-pox prevalence. These are hung round the walls of the first room of the exhibition, and in this room are also hung two large pictures; one is a drawing of the Jenner Monument in Boulogne, contributed by the Paris Académie de Médecine. The other is a replica in oils of a picture by an American artist which was exhibited a few years ago on the other side of the Atlantic. It represents Jenner in the act of vaccinating James Phipps—making, in fact, his first successful experiment in vaccination. The scene represented is the garden of Jenner's house; Jenner is seated and holds the boy between his knees, while he inserts the lymph into his arm; and a number of people, gentle and simple, are looking on at the novel procedure, some expressing merely curiosity, while others appear to regard it with anything but approval. In this same room are some interesting historical documents connected with the story of small-pox prevention in the past. Here is the original *gramota* or document signed by the Empress Catherine, conferring nobility on the boy Ospennui, from whom the lymph had been taken for inoculating the Empress in 1768. The famous English medical man, Dr. Dimsdale, it will be remembered, performed this little operation, for which he received the most liberal rewards. The real name of the boy from whom the small-pox lymph was taken was Peter Basof, but Catherine re-named him Ospennui (from *ospa*, small-pox) and raised him to the ranks of the nobility. A somewhat parallel circumstance happened when vaccination was introduced into Russia at the beginning of this century. The Empress Marie, consort of the Emperor Paul, one of the most beneficent and charitable of all Russian empresses, corresponded with Jenner and received direct from him some points or tubes of lymph. These she sent to the great Foundling Hospital in Moscow. The first child to be inoculated was a boy named Anton Petrof, but by command of Her Majesty his name was changed to Anton Vaccinof in memory of the event. Unfortunately, all documents relating to this boy were destroyed or lost during the occupation of Moscow by the French in 1812. Some other papers relating to Ospennui, the vaccinifer of Catherine's time, are shown in the present exhibition.

Among the exhibits are contributions from almost every civilised country, including such distant lands as Japan and Brazil. It is impossible here to mention more than a small fraction of these. They are mostly books, reports, tables, diagrams, prints and caricatures, and instruments. The engraved portrait of Lady Mary Wortley Montagu, sent to the society by our own gracious Queen, naturally occupies a prominent position. Here, also, is a very beautiful little gold and enamel casket, which, according to an inscription it bears, was presented to Jenner by the corporation of the City of London in 1803. This is lent by the Society of Apothecaries of London; it is thought to have been presented at the same time that the Freedom of the City was conferred on Jenner, but it is too small to have contained anything in the nature of a document. It has recently been used as a snuff-box.

There is an interesting little collection of medals and plaster casts from medals. One was struck on the death of Peter II., who died from small-pox in 1730; another commemorates the inoculation of the Empress Catherine; others have been awarded at different times to different people who have been zealous in spreading vaccination. One curious object is a Government "Instruction" of last century, a document instructing people in the value of small-pox inoculation and the method of performing it. It is illustrated by two quaint pictures: the one represents a group of wretched-looking peasants bearing a coffin to the cemetery, and underneath it are the words (in Russian): "Terrible results of small-pox: deformity, disease, short life, death." The other shows in contrast a happy village where inoculation has been practised; the peasants and children are dancing to the twanging of a *balalaika*, and underneath is written: "The salutary results of inoculation: beauty, health, long life!"

In the second room is a collection of portraits of Jenner, varying in size from large prints after Northcote, Lawrence, and others, down to a silhouette, miniature size. Opinions will probably always differ as to which is the best likeness of Jenner. The portrait by Sir Thomas Lawrence, of which some good prints are shown, though by the greater artist, is perhaps less satisfactory than some others. Probably the best-known portrait—and not improbably the best likeness—is that after a coloured print by J. R. Smith, in which Jenner is shown leaning with his right arm on the bough of a tree and showing a cow in a meadow in the background. Here, also, are several portraits of contemporaries, supporters and opposers, of Jenner. A number of caricatures from different countries are instructive evidence of the absurd views and fears to which vaccination, when it was first introduced, gave rise.

On a series of shelves placed round this room is a large collection of small-pox literature. Books, pamphlets, and reports in every language and of every size are here displayed. The collection of English authorities appears to be very complete. All Jenner's works (some in the original edition) are here, and among others are such works as those of Moore, Ring, Willan, Bryce, Aikin, Monro, and Kirkpatrick for the early period, and Ceely, McVail, Seaton, Crookshank, and a host of others for more modern times. Among the reports are several drawn up by the Medical Officer of the Local Government Board, presented by him to the Russian National Health Society, and the reports of the special committee of the Epidemiological Society which were laid before the House of Commons in 1851 and 1854 and led to the passing of our present vaccination laws. These are specially bound in Russian leather and bear an inscription on the cover to the effect that they were presented by the Epidemiological Society to the Russian National Health Society on the occasion of the centenary of Jenner's discovery.

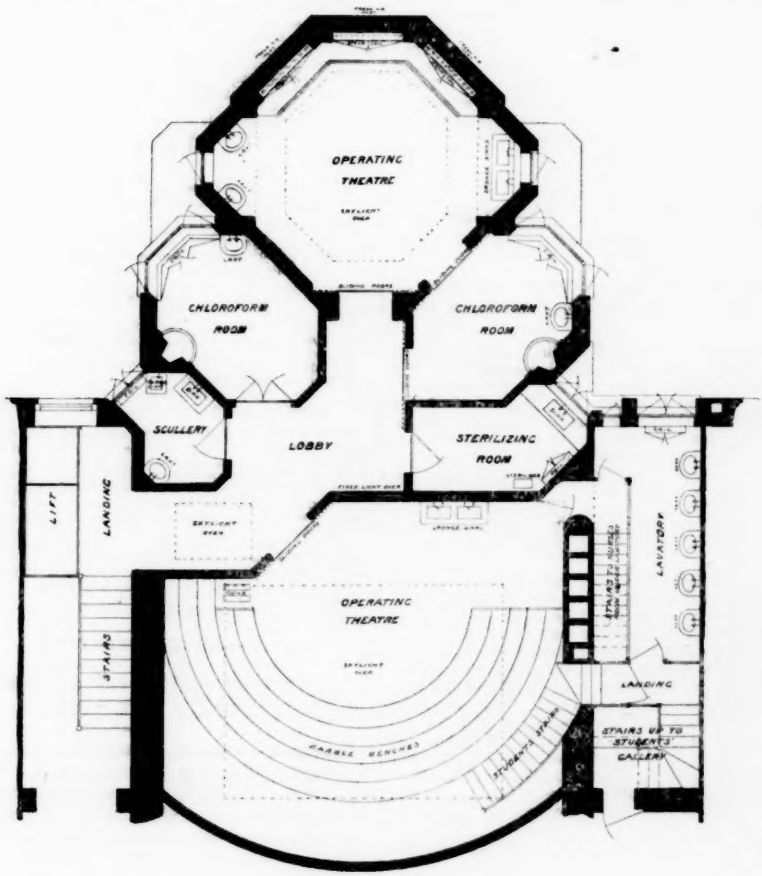
Another room of the exhibition contains objects displayed by firms or individuals. There are models of laboratories and of vaccination institutions, apparatus for disinfection, various instruments used in vaccinating animals and human beings, and different forms of tubes or points for preserving lymph. On the walls are tables showing the varying degrees of receptivity to vaccination in various birds and animals. In the centre of this room is a circular stall in which are placed two calves. These calves have been inoculated. They are swathed in large white stable-cloths and attract a considerable amount of attention.

One of the best exhibits in the whole collection is a series of wax models showing the normal development of the vaccine vesicle in a healthy arm and its development in certain morbid conditions. Another series shows the same thing in the calf. They are admirable reproductions. The same praise may be given to a number of large water-colour drawings of small-pox and vaccine vesicles and to others showing their microscopic appearances. The anatomical characters of vaccination are also fully illustrated by a series of photographs and by a number of prints, plain and coloured, gathered from the works of all the best known authorities on the subject.

THE NEW OPERATING THEATRE AT ST. GEORGE'S HOSPITAL.

THE operative surgical work at St. George's Hospital having increased so much as to outgrow the theatre accommodation it was wisely resolved to remodel the old theatre and, at the same time, to build a new one in addition. This undertaking was completed about three months ago, and the formal opening of these new rooms by His Royal Highness the Duke of Cambridge, which took place on Dec. 23rd, 1896, was duly mentioned in THE LANCET of Dec. 26th. As shown in the accompanying illustration, this important department—as now improved, enlarged, and extended—consists of the large (east) theatre which has been completely remodelled, the small (west) theatre which is entirely new, two chloroform rooms (one in connexion with each theatre), a sterilising room, a scullery, a lavatory, and a store-room, and a nurses' sitting-room situated beneath the lavatory. The whole of these rooms are situated, as in the case of the old theatre, about seven feet above the level of the second floor of the hospital, The main approach from the second-floor corridor is by a teak staircase four feet wide; there is also communication between the same corridor and the theatres by means of a patients' lift, an arrangement which does away with the necessity of carrying patients up or downstairs in bringing them to or from the central wards of the second floor—i.e., the Harris and the Wright, Cholmondeley and Radcliffe—from the central wards of the first floor, and from any of the ground-floor wards.

The walls and ceilings of these rooms are entirely lined with glazed tiles, those of the ceilings being separately screwed up, and each tile being made with a lap joint. In the two theatres and the chloroform rooms the lower tiles are of an olive green colour and form a dado of about four feet high. A skirting of the same coloured tiles about eighteen inches high is continued round the corridors, in the scullery, and the sterilising room. The remainder of the tiling of the walls is of a warm cream colour, the ceilings being white. All the corners throughout are rounded, so as to facilitate cleaning, and the whole of the theatres might be washed down with a fire hose. The floors throughout are of marble mosaic, without a central gully. The benches for spectators in the large theatre and the single row in the small theatre are of white marble. The standards and rails in the large theatre are the same that were formerly in use, but in the small one they are of gun-metal tubing. The skylight of the small theatre is constructed entirely of iron, and with the object of equalising the temperature it is double glazed, the space between the two layers of glass being four and a half inches. The daylight illumination of both theatres is very good. The



SECOND FLOOR PLAN

heating apparatus for the new (or west) theatre consists of three sets of copper pipe coils, containing forty superficial feet and supplied with steam direct from the hospital boilers. The air-supply is filtered through wet screens and warmed by passing over the coils before it is delivered into the theatre. An extraction shaft carried up from the highest part of the theatre discharges at a level above all the surrounding roofs, by which arrangement it is estimated that the whole of the air can be changed once in every six minutes. In the east theatre the old coils are in use. The artificial lighting is entirely by electricity, but gas is laid on in the sterilising-room, where there is a gas-heater fitted to a Schimmelbusch steriliser. Separate electric mains are carried into the east theatre, and can be used for a motor, for electrolysis, the cautery, &c. The instrument cases are made of plate-glass and brass. In order to prevent dust being carried into these cases by the current of air produced when their doors are opened they have ventilation apertures provided with cotton-wool screens which filter the air and arrest the dust; the small hardwood cupboards in which the mackintoshes, porringers, and such like are kept are fitted with ventilation openings on the same principle.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY meeting of the Council was held on Jan. 14th, the President, Sir WILLIAM MACCORMAC, being in the chair.

It was resolved to send a letter to Sir Joseph Lister on behalf of the Council and of the Fellows congratulating him on his elevation to the Peerage.

A report was received from the Dental Section of the Board of Examiners in Dental Surgery in which they recommend a synopsis for the examination in dental metallurgy, and also that the examination in this subject should be conducted by written paper only. The report was approved. The synopsis is given below.

The senior Vice-President reported the proceedings at the half-yearly meeting of Fellows on Jan. 7th, and stated that thirty-nine Fellows were present, including thirteen members of Council.

The thanks of the Council were accorded to Sir Joseph Lister, Bart., F.R.S., for representing the College at the Pasteur Memorial Ceremony on Dec. 26th, 1896. A letter was read from Mr. Howard Marsh, stating that, in anticipation of the expiration on April 8th next of his period of office on the Court of Examiners, he desired to place his resignation in the hands of the Council, to take effect from the end of the Pass examination for the Membership to be held in January. The resignation was accepted, and the President stated that the vacancy thus occasioned, and also the vacancy due to the expiration of Mr. Howse's period of office, would be filled up at the ordinary meeting of the Council on March 11th.

Mr. LANGTON moved: "That it is desirable that no one who has served six years as a representative of this College on the Committee of Management or the Laboratories' Committee shall, on his retirement in rotation from office, be eligible for immediate re-election."—The motion was carried.

SYNOPSIS OF THE EXAMINATION IN DENTAL METALLURGY.

The physical properties of the metals—gold, platinum, palladium, silver, tin, antimony, mercury, lead, bismuth, zinc, cadmium, copper, aluminium, iron, nickel—viz., lustre, tenacity, elasticity, malleability, ductility, conductivity for heat and for electricity, fusibility, specific gravity, specific heat, expansion by heat, brittleness, hardness, crystalline character, change of volume on solidification. Action of air (either hot or cold), of water, of acids, of alkalies and of sulphuretted hydrogen on the above metals and their principal alloys and amalgams. Effect of exposure of the above metals, their alloys and amalgams, in the mouth.

Gold.—Preparation and properties of pure gold. Cohesive and non-cohesive gold. Precipitated and spongy gold. Assay of gold. Calculation of amount of base metal to be added to reduce the fineness of gold to a given carat, or of the amount of fine gold or of gold of high carat needed to be added to raise the fineness of an alloy to a given carat. The detection and estimation of gold in alloys. The purple of Cassius. The effect of impurities on the properties of gold. The properties of the alloys of gold. Composition of solders for gold.

Platinum.—Preparation and properties of platinum. Platinum-black and spongy platinum. Detection and estimation of platinum in alloys. Alloys of platinum with iridium, gold, silver, and other metals. Dental alloy.

Palladium.—Preparation and properties of palladium and its combinations with silver, gold, and mercury.

Silver.—Preparation and properties of pure silver. Assay of silver by cupellation and in the wet way. Preparation and properties of the combinations of silver with copper, gold, platinum, and mercury. Composition and preparation of solders for silver. Electro-plating.

Tin.—Preparation and properties of tin. Detection of tin in alloys. Preparation and properties of the alloys of tin. Its combinations with zinc, copper, and mercury. Composition and melting-points of readily fusible alloys.

Antimony.—Preparation and properties. Properties of alloys.

Mercury.—Preparation and properties of pure mercury. Testing the purity of mercury. Vermilion and detection of impurities therein. Preparation and properties of amalgams of the various metals mentioned in this synopsis. Composition and preparation of the principal alloys which have been used for preparing dental amalgams. Methods of testing such amalgams, as to the causes of their change of volume, permanence in the mouth, and change of colour. Effects of different metals in these amalgams. Possible action of amalgam fillings on other metals used in the mouth.

Lead.—Preparation and properties. Effect of alloying on its properties. Solders and soft soldering.

Bismuth.—Preparation and properties. Alloys.

Zinc.—Preparation, purification, and properties. Preparation of zinc oxide, zinc chloride, and the various materials for the oxy-chloride, oxyphosphate, and oxysulphate cements. Action of acids and alkaline solutions on cements in the mouth. Alloys of zinc.

Cadmium.—Properties, its advantages and disadvantages in alloys and amalgams.

Copper.—Preparation and properties. Effects of impurities on its properties. Alloys. Modes of preparation and properties of copper amalgams. Preparation of Sullivan's amalgam and its modifications.

Aluminium.—Preparation and properties of aluminium and aluminium-bronze. Solders for aluminium and aluminium-bronze.

Nickel.—Preparation and properties. Alloys. German silver. Nickel-plating.

Iron.—Differences between cast iron, wrought iron, and steel. Effect of presence of impurities in iron. Hardening, tempering, annealing, and burning steel.

Methods of testing metals and alloys for their various properties as described in first paragraph.

Methods of testing dental amalgams for changes of volume. Effect of sulphuretted hydrogen, water, air, acids, and alkalies on dental amalgams.

Methods of parting gold from silver; rough tests for fineness of gold alloys (touchstone); of preparation of gold alloy of required fineness; of recovery of gold from scraps; of preparation of solders for gold; of recovery of platinum and silver from scraps; of preparation of pure silver; of preparation of amalgam alloys containing two or more of the following metals—silver, tin, gold, platinum, copper, zinc; of preparation of readily fusible alloys, containing two or more of the metals—tin, lead, bismuth, mercury, cadmium, antimony, and zinc.

Methods of determining melting-points of readily fusible alloys; of preparation of alloys recommended for dies and counter-dies.

Description of furnaces and muffles used in metallurgy.

The blow-pipe; theory and varieties of fluxes.

Colouring and gilding gold.

Purification of sweep or lemel.

THE OUTBREAK OF CHOLERA ON BOARD THE "NUBIA."

BEFORE the outbreak of cholera on board the *Nubia* is altogether relegated to the things of the past and swept out of sight by the stream of succeeding events it seems to us that, in the interest of scientific medicine, it would be as well to inquire a little more closely than has been done into the facts making up the medical history of that outbreak. In the full and lengthy description that appeared in the daily journals there was, so far as we recollect, one important point omitted—namely, the precise date of the vessel's arrival at Colombo. We know from the published account that appeared in our columns last week that it was Dec. 17th, and we also know by a brief paragraph that appeared in the *Indian Medical Record* of Dec. 16th last that "cholera has broken out at Colombo." This information was corroborated by a communication published in the *Times* of the 12th inst., as well as by information we have received from another source; in fact, up to Dec. 22nd, according to papers received from Colombo, there had been 73 fatal cases of cholera in the crowded native quarters at that station.

As regards the way in which the outbreak was dealt with on the arrival of the *Nubia* at Plymouth there is nothing to be said except praise. The measures adopted were those of isolation and observation *not* of quarantine; they were quite wise and reasonable, and, what is more, their adequacy and efficacy have now been ratified by a fair amount of experience, and the local arrangements made for

applying such measures were promptly and admirably carried out. With respect to the origin and causes of the outbreak on the *Nubia* a good deal of doubt has been expressed, and the view that the source of the cholera was first contracted at Port Said seems to be regarded as the most probable explanation. But is this so? Do not the facts, on the other hand, point to Colombo? In the first place, it is strenuously denied that there was at the time, or had been recently, any cholera at Port Said or in Egypt. If this be so, it is not easy to understand how a disease or anything else can be communicated which neither the place nor the people had to communicate! Moreover, was the fruit consumed exclusively by the troops on board the *Nubia* or by those first attacked? But the period of incubation, it is alleged, fits in with the assumption that the source of the cholera was Egypt and not Colombo. We will touch upon this point subsequently. That cholera existed at Colombo at the time the *Nubia* was at that port may be taken as a fact; that she there embarked a number of troops of the North Lancashire Regiment—and possibly other soldiers—is also a fact; and, still more interesting, the disease seems to have originated among the men of the North Lancashire Regiment and to have been confined to the military on board; in other words, on the assumption that they carried cholera on board with them they seem to have kept it. The date of the first fatal case actually ascribed to cholera is given as Jan. 2nd—a long interval; but it does not at all follow that some of the baggage, stores, or clothing shipped with the troops at Colombo may not have been opened and exposed subsequently to the departure of the *Nubia* from that port. Be this as it may, however—and we only put it forward hypothetically—the occurrence of cholera in vessels leaving cholera-infected ports at dates beyond the recognised and usually short period of incubation of this disease is not by any means an unknown phenomenon. On the contrary, it would not be at all difficult to adduce instances of the kind from the published records of outbreaks of cholera on ships—of the occurrence, for example, of the first fatal case of cholera from the seventh to the sixteenth day of the voyage and even after the twentieth day. To take the well-known case of the *Renown*. Cholera appeared in Gibraltar on Aug. 19th, 1865. On the 21st the headquarter wing of the 19th Regiment went on board that ship. On the 22nd—the third day after the first fatal case of cholera in Gibraltar—a fatal case occurred on the ship. The vessel was hauled out into the bay and retained there for thirty hours; and, no subsequent case having occurred, she proceeded on her voyage to the Cape. On Sept. 5th following, a fortnight after the fatal case at Gibraltar, there was an outbreak of cholera on board the *Renown* which lasted fourteen days, and the period of this outbreak is stated to have corresponded to that of the maximum intensity of the epidemic in Gibraltar. The left wing of the same regiment, which departed from Gibraltar in another vessel on the very day cholera broke out at Gibraltar, altogether escaped the disease. In the case of the ship *Gertrude* again the facts are interesting. On May 21st, 1859, when a severe epidemic of cholera was prevailing at Calcutta, a number of sick and wounded men were embarked for passage to England. On June 15th following—twenty-four days after all communication with land had ceased—the first fatal case occurred, and the outbreak lasted until June 25th—ten days. In the literature that exists on this subject it has been occasionally observed that the crews, troops, and others, if drawn from separate sources and shipped immediately before sailing, showed no community of attack, cholera being confined to those shipped from a definite quarter.

To return to the *Nubia*. It appears that the origin of the outbreak cannot in this particular case be ascribed to the contamination of the water-supply; that vehicle of the disease was thoroughly investigated and eliminated as a cause because it was found to be inconsistent with the facts of the outbreak. No one can have any doubt, least of all readers of THE LANCET, of the great importance that is attached to the view that cholera is a water borne disease, but that is very different from saying that it is exclusively so or that the poison must invariably be swallowed, with its consequent corollary and obvious moral that the only safeguard is—the kettle!

We do not pretend, of course, to say that the origin of the outbreak on board the *Nubia* is demonstrably attributable to the cause having been embarked at Colombo, but we do say that all the facts require to be ascertained and most carefully weighed before the correctness of that view be discarded, for, so far as we know them at present, and so far as the medical history of the outbreak goes, there seems to be a good deal to be said in favour of it. Where an opinion has to be based on the facts or on assumptions we prefer to range ourselves for the time being on the side of the facts so far as we know them.

CONGRATULATIONS TO LORD LISTER.

WE have received the following letters for publication from the Registrar of the Royal College of Surgeons in Ireland:—

Royal College of Surgeons in Ireland, Jan. 9th, 1897.

MY LORD,—The Council of the Royal College of Surgeons in Ireland have requested me to tender to you on their behalf and my own our earnest congratulations on your elevation to the peerage. We are glad to recognise that on the first occasion on which such an honour has been conferred upon a member of our profession the recipient should be one who has created a new era in surgery and who has thereby saved innumerable lives. There is no place in which your precepts and practice have been more zealously followed than in this country, and we, in common with all other peoples, are your debtors. We rejoice in the honour which has been conferred upon you by Her Majesty, and we trust that you may live long to exercise that influence upon the practice of scientific surgery which has made your name famous.

I am, My Lord, yours faithfully,
W. THOMSON, President.

[REPLY.]

12, Park-crescent, Portland-place,
Jan. 12th, 1897.

MY DEAR MR. THOMSON,—I esteem it a very high honour to receive congratulation from the body which represents my Irish colleagues in surgery, and I feel it to be enhanced by the circumstance that the gratifying message has been communicated to me by yourself, the President of the College.

I well remember the kind part you took in reporting a small address that I gave many years ago in the Richmond Hospital, an act on your part which, I suspect, had no small share in diffusing among your Irish brethren the principles of antiseptic surgery. I beg you to express to your colleagues on the Council the great gratification which they have caused to me, and

Believe me, very sincerely yours,
JOSEPH LISTER.

THE LONDON WATER QUESTION.

AT the meeting of the Society of Chemical Industry on Monday last an important paper on "The Character of the London Water Supply" was read by Mr. W. T. Dibdin, the chemist to the London County Council. The speaker first called attention to a point that has been largely overlooked—viz., the character of the matters held in suspension in presumably pure waters. Although small in quantity these materials were often of such a kind as to throw considerable light on the source and quality of the water in a way that the old methods of analysis failed to do. For a considerable period daily analyses had been made of the water supplied to London by the different companies and of the water of the river Thames at the intakes of the companies deriving their supply from that source. After several improvements in the method of examination a specially constructed micro-filter was at length employed, enabling the quantity of suspended matter to be stated volumetrically as millimetres per litre. A further advantage of this method was that the deposit could be used afterwards for microscopical examination. The quantities of suspended matters present in the Kent, West Middlesex, and New River waters during 1895 were practically the same—0·0011 grain per gallon—and Mr. Dibdin accepted this proportion as the unavoidable minimum due to "rust and dust." The average quantities present in the other London supplies, however, amounted to 0·0033 grain per gallon, leaving 0·0022 grain of avoidable suspended matter. If the West Middlesex was capable of so purifying Thames water as to reduce it to the high standard of the Kent and New River waters there was no reason why the other companies drawing their supplies from the Thames should not do the same. The average quantities of suspended matter in the various waters

determined on the micro-filter and gravimetrically were as follows:—

Company.	Mm. in micro-filter per litre of water.	=	Grains per gallon.
Kent	0·3	=	0·0007
New River	0·3	=	0·0010
West Middlesex	0·4	=	0·0009
Chelsea	0 4	=	0·0021
East London	0 6	=	0 0025
Grand Junction	0 4	=	0 0023
Lambeth	0 4	=	0·0021
Southwark	0·7	=	0 0039
River Thames at Sunbury ...	12·0	=	0·7569

This table showed that the deposit from the Grand Junction, Southwark, Lambeth, and Chelsea waters was of a much higher specific gravity than that from the Kent, New River, and West Middlesex waters, the large quantities of débris and decaying organic matter present in the former accounting for the difference. Taking the whole into consideration Mr. Dibdin was of opinion that in the case of a water containing less than 1 mm. per litre (using a micro-filter tube of 2 mm. diameter), equal to 0·004 grain per gallon, no notice need be taken of the deposit unless the microscopical examination showed the presence of objectionable matter. The estimation of the percentage of nitrogen in the volatile organic matter brought out strong differences between the waters derived from the Thames—with the exception of the West Middlesex—and the other London waters, as will be seen from the following table:—

Chalk ...	Kent...			2·12
	Southwark ...	3·44		
	Lambeth ...	3 42		
	Chelsea ...	2·97	...	3·27
	Grand Junction ...	3·66		
	West Middlesex ...	2·86		
New River...	New River			2·86
Lee... ...	East London			2·97
Thames Intakes (Sunbury)	... ...			4·06

A diagram showed clearly that the nature of the deposit from Thames water, judged from this standpoint, closely resembled that from raw Thames water and even polluted river mud. The microscopical examination of the waters showed that 30 per cent. of those derived from the Thames should be classed as objectionable—i.e., containing large quantities of débris infested with bacteria, paramecia, and other infusoria. The quantity of bacteria seemed to be in close relation to the quantity of organic débris, and the discrepancies found between the results of different observers may be due to the variation in the quantity of débris included. The average number of bacteria present, determined by cultivation on gelatin plates, varied from 90 per c.c. in the Kent water to 352 in the Southwark. The Lambeth water gave 294, East London 277, and Grand Junction 170, the others being comparatively low. These results were compared with the figures obtained in 1891-92, when the Kent water gave 4795, Southwark 4594, Lambeth 4626, East London 3387, and the others between 2000 and 3000. Mr. Dibdin ascribed this improvement to the influence on the companies of the evidence given before the Royal Commission.

An interesting comparison was made between the present London supply and the Welsh mountain streams, unfiltered. With the exception of the Kent water the difference between them did not seem to be very marked. Lovibond's tintometer, however, whilst showing no yellow tint in the Kent water and practically none in the Welsh, registered a considerable proportion in the London supply. Mr. Dibdin concluded his paper with a few facts relating to the possibilities and advantages of purifying London water by softening with lime.

In the subsequent discussion, which had to be adjourned owing to the lateness of the hour, Dr. Frankland's assistant, Mr. BURGESS, said that he had a close acquaintance with the analysis of London waters. He did not agree with many of Mr. Dibdin's results, especially his figures for organic nitrogen, which he considered too high. He had had no personal experience with a micro-filter, but suggested that the high figures obtained by Mr. Dibdin for organic suspended matter might be due to the length of main through which some of the water had travelled. Especially he thought this might be the case with the Southwark water. He pointed out that, owing to floods, the year 1891-92 was a very bad one for the water companies, and he disputed Mr. Dibdin's inference that the subsequent improvement was due to the evidence before the Royal Commission.

Dr. DUPRÉ said that, in his opinion, water known to be contaminated should be rejected entirely for domestic purposes. He thought that the principal danger to London lay in the possibility of an epidemic occurring among the population higher up the river. Instancing the cholera epidemic at Hamburg, Dr. Dupré said that the Hamburg people had drunk the water of the Elbe for many years with impunity, but the cholera infection coming down with the river water had caught the city undefended. Altona—a suburb of Hamburg—it was thought was secure on account of its filter-beds, but on one occasion the filter-beds broke down, and the number of deaths that occurred would have been equivalent to 5000 in the London water area. Dr. Dupré said that Professor Koch declared that water containing over 100 bacteria per cubic centimetre should be run to waste, and that if it exceeded this limit, the population should be warned. This, however, was practically useless, as the infection would have two days' start. It would be interesting to compare the statistics of epidemics above the intake with the figures for London itself. Dr. Dupré said that a proper water supply was simply a question of cost. The people of London should be warned, and if they chose to run the risk they should do so with their eyes open.

Mr. FLETCHER pointed out the danger of floods in the Thames. The great advantage of having a Welsh supply would be the security against fæcal contamination of the water supply.

Mr. WM. THORP asked questions about the method of collection and disagreed with Mr. Dibdin's method of recording the amount of the deposit on the micro-filter.

Dr. VOELCKER said that the micro-filter failed to distinguish between quality and quantity, and he thought that the fine earthy material brought down when the river was in flood would interfere with deductions based upon it. He did not consider that the harmony between the quantity of mud and the quantity of bacteria had been established. He thought that too much was made of the presence of bacteria. Until it was known which bacteria were good and which were harmful it was unwise to draw conclusions from the presence of bacteria. The London water was infinitely better than most of the country supplies and he thought that the bad condition of cisterns and pipes inside the houses was far more dangerous to health than the small quantity of impurity that escaped the filter-beds of the companies.

After a few remarks from Mr. NEWLANDS the meeting adjourned.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

Enteric Fever at Middlesbrough.—The medical officer of health of Middlesbrough was appointed prior to March, 1880, and hence he is under no legal obligation to submit his annual report to the Local Government Board. The Middlesbrough town council are anxious, it appears, to perpetuate as long as possible this unsatisfactory relation, or, rather, want of relation, with the central health authority. Some of the councillors have, they say, a holy horror of "red tape," while others seem to prefer to keep both their insanitation and their enteric fever to themselves. Unfortunately in the matter of enteric fever this is more easily said than done, and doubtless Middlesbrough has, in some instances at least, been instrumental in conveying the disease outside its own territory. Indeed, the prevalence of enteric fever has of late been so marked in Middlesbrough that the Local Government Board recently decided to ascertain, through one of their own officers, the actual condition of affairs. As the result of this decision Dr. Bruce Low has written an elaborate report upon the subject. From the latter we learn that Middlesbrough, which is built on a flat, low-lying ground contiguous to the Tees, and has a population of some 86,000, has for years been unduly afflicted with enteric fever; in fact, the disease is

endemic there, and instead of diminishing shows signs of increasing. Dr. Bruce Low deals only with such figures as relate to the five years embraced between July 1st, 1891, and June 30th, 1896. Prior to the first of these two dates there were two notable outbursts of enteric fever in the Tees valley, and Middlesbrough was one of the districts involved. These outbursts, which were sudden and transient in character, were traced by Dr. Barry to the fouling of the Tees water above the intake of the water company which supplied the districts affected. In the present instance Dr. Bruce Low found that although all the ten wards of the borough were invaded four of them showed an exceptional incidence of the disease throughout the period to which the report relates, and in a characteristically lucid fashion Dr. Low discusses how far the causes which are usually held to account for the prevalence of enteric fever have been operative. He dismisses milk and water as failing to account for the prevalence of the disease, there having been no sudden outburst such as was observed in 1890 and 1891 by Dr. Barry, and further, the chief prevalence of the disease has been in wards where exceptionally insanitary conditions obtain; it has, too, to be noted that but little Tees water is now used and that very shortly even this will be discontinued. There have, Dr. Low thinks, been operative in Middlesbrough two agencies which may be held in large part to account for the endemic incidence of enteric fever in certain localities, these agencies being defective privies and sewers. In respect of the former it is to be narrated that situated as they are above the ground level their contents tend to leak out and to foul the superficial layers of the soil and to thus pollute the atmosphere. The sewers in the chiefly invaded districts are defective and inadequate, and during periods of high spring tides and heavy rainfall the sewage is dammed back into the sewers and at times escapes into cellars and yards. The association between the midden privies and ashpits and enteric fever is seen by the accompanying table:—

Table XI., showing the Number of Houses served by Pan Closets, by Midden Privies, and by Waterclosets in Middlesbrough in 1896, with the Incidence of Enteric Fever Cases on Houses served by one or other Method during the last Five Years.

—	Total number.	Enteric fever attacks in houses of each class during the last five years.	Enteric fever attacks per cent. of houses in each instance.
Houses served by ashpans	8,502	603	7·09
Houses served by midden privies	3,274	320	9·77
Houses served by waterclosets ...	1,296	21	1·62
Total	13,072	944	7·22

We have not space to notice more fully Dr. Low's carefully arranged report, but we must endorse its concluding sentences, and express a hope that the town council of Middlesbrough will not refuse to be guided by their own skilled advisers and that the sewers will be re-constructed and the remaining 3000 privy middens be abolished forthwith.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 7127 births and 4055 deaths were registered during the week ending Jan. 16th. The annual rate of mortality in these towns, which had been 22·3 and 19·4 per 1000 in the two preceding weeks, further declined last week to 19·2. In London the rate was 18·0 per 1000, while it averaged 20·1 in the thirty-two provincial towns. The lowest rates in these towns were 9·1 in West Ham, 15·4 in Portsmouth, 15·5 in Brighton, and 15·9 in Leicester; the highest rates were 23·9 in Wolverhampton, 24·9 in Preston, 25·1 in Liverpool, and 28·3 in Plymouth The 4055 deaths included 378 which were referred to the principal zymotic diseases, against 436 and 415 in the two preceding weeks; of these, 90 resulted from whooping-cough, 77 from diphtheria, 73 from measles, 49 from diarrhœa, 45 from "fever" (principally enteric), and 44 from scarlet fever. No death from any of these diseases occurred last week in Norwich or in Bolton; in the other towns they caused the lowest death-rates in Croydon, Brighton, Burnley, and Birkenhead, and the highest rates in Birmingham, Manchester, Bristol, Blackburn, and Nottingham. The greatest mortality from measles occurred in West Ham, Portsmouth, Plymouth, Nottingham, and Bradford; from scarlet fever in Gateshead; from whooping-cough in Bristol, Nottingham, Blackburn, Huddersfield, and Sunderland; and from "fever" in Halifax. The 77 deaths from diphtheria included 52 in London, 9 in Birmingham, 3 in Bristol, 2 in Liverpool, and 2 in Leeds. No fatal case of small-pox was registered during the week under notice, either in London or in any other of the thirty-three large towns. There were 3 cases of small-pox under treatment in the Metropolitan Asylum Hospitals on Saturday last, the 16th inst., against 3 and 2 at the end of the two preceding weeks; 1 new case was admitted during the week. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital was 3414, against 3763, 3707, and 3597 on the three preceding Saturdays; 208 new cases were admitted during the week, against 219, 271, and 290 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 342 and 335 in the two preceding weeks, further declined to 306 last week, and were 495 below the corrected average. The causes of 57, or 1·4 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Bristol, Cardiff, Bradford, and in eight other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Birkenhead, Liverpool, and Preston.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased in the seven preceding weeks from 20·3 to 22·8 per 1000, declined to 21·9 during the week ending Jan. 16th, but was 2·7 per 1000 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 17·3 in Aberdeen and 18·0 in Leith to 23·5 in Glasgow and 23·8 in Paisley. The 654 deaths in these towns included 28 which were referred to measles, 26 to whooping-cough, 11 to diarrhœa, 4 to "fever," 3 to scarlet fever, and 3 to diphtheria. In all, 75 deaths resulted from the principal zymotic diseases, against 103 and 101 in the two preceding weeks. These 75 deaths were equal to an annual rate of 2·5 per 1000, which exceeded by 0·7 the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had been 48, 60, and 45 in the three preceding weeks, further declined to 28 last week, of which 25 occurred in Glasgow. The deaths from whooping-cough, which had been 15 and 20 in the three preceding weeks, further rose to 26 last week, of which 23 were recorded in Glasgow and 2 in Edinburgh. The 4 deaths referred to different forms of "fever," showed a decline of 2 from the number in the preceding week, and included 3 in Glasgow. The fatal cases of scarlet fever, which had been 10, 5, and 10 in the three preceding weeks, declined to 3 last week. The 3 deaths from diphtheria corresponded with the number in the preceding week, and included 2 in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 151 and 152 in the two preceding weeks, further rose to 162 last week, and exceeded by 31 the number in the corresponding week of last year. The causes of 34, or more than 5 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 44·1 and 35·2 per 1000 in the two preceding weeks, further declined to 34·8 during the week ending Jan. 16th. During the last quarter the death-rate in the city averaged 27·6 per 1000, the rate during the same period being 18·1 in London and 17·8 in Edinburgh. The 233 deaths registered in Dublin during

the week under notice were within 3 of the number in the preceding week, and included 47 which were referred to the principal zymotic diseases, against 36 and 40 in the two preceding weeks; of these, 27 resulted from whooping-cough, 9 from measles, 5 from scarlet fever, 4 from "fever," 2 from diarrhœa, and not one either from small-pox or diphtheria. These 233 deaths were equal to an annual rate of 7·0 per 1000, the zymotic death-rate during the same period being 1·7 in London and 1·2 in Edinburgh. The fatal cases of whooping-cough, which had been 15, 23, and 19 in the three preceding weeks, rose again to 27 last week. The 9 deaths referred to measles corresponded with the number recorded in the preceding week. The fatal cases of scarlet fever, which had been 1 and 4 in the two preceding weeks, further rose to 5 last week. The 4 deaths referred to different forms of "fever" were within one of the number in the preceding week. The 233 deaths in Dublin last week included 40 of infants under one year of age and 48 of persons aged upwards of sixty years; the deaths of infants showed an increase, while those of elderly persons showed a further decline from those recorded in recent weeks. Four inquest cases and 3 deaths from violence were registered; and 68, or nearly a third, of the deaths occurred in public institutions. The causes of 19, or more than 8 per cent., of the deaths in the city last week were not certified.

VITAL STATISTICS OF JAMAICA.

According to the annual report of the Registrar-General of Jamaica for the year ended March 31st, 1896, the total estimated island population at the close of the official year was 694,865, the last census taken in 1891 having shown an enumerated population of 639,491. The marriages during the year numbered 3242, equal to a rate of 4·6 marriages per 1000 of the population; this rate shows a decline on those of the preceding five years. The births registered during the year numbered 26,842, giving a rate of 38·8 births per 1000 of the mean population. Of these births, 16,331 were illegitimate; the general illegitimacy rate is therefore 60·8 per cent. of the total births, but in several localities the proportion was higher than this—in the parish of St. Thomas, for instance, it was 73·7 per cent. The deaths registered in the year numbered 15,716, the rate per 1000 mean population being 22·7. Of the total deaths 4791, or 30·5 per cent., were those of children under one year of age; whilst 6819, or 43·4 per cent., were of children under five years of age. Of the 15,716 deaths in the year 11,688, or 74·3 per cent., were registered without any medical certificate of cause of death being obtained. The following are a few of the more noteworthy items in the tables of causes of death: chicken-pox, 3; measles, 9; influenza, 247; whooping-cough, 326; diphtheria, 16; cerebro-spinal fever, 21; enteric fever, 75; small-pox, 0; scarlet fever, 0; typhus fever, 0; yellow fever, 0; intermittent, remittent, and malarial fever, 383; cancer, 115; phthisis, 1182; lepra, 39; elephantiasis, 8; yaws, 25; sunstroke, 3; and lightning, 3. A great many cases are vaguely described—such as fever (undistinguished), 2489; old age, 1374; convulsions, 1462; and "ill-defined and not specified causes," 2059.

THE SERVICES.

ARMY MEDICAL STAFF.

SURGEON-MAJOR W. F. HEFFERNAN and Surgeon-Lieutenant H. A. L. Howell embark for service in India. Surgeon-Major W. W. Pike has been placed under orders for India.

Surgeon-Major Alexander Sharpe, M.D., retires on retired pay. Surgeon-Major George D. Hunter, D.S.O., from the Seconded List, to be Surgeon-Major, vice W. J. Macnamara, M.D., seconded.

INDIA AND THE INDIAN MEDICAL SERVICES.

The services of Surgeon-Captain J. Chaytor-White (Bengal) are placed temporarily at the disposal of the Government of the North-West Provinces and Oudh. The services of Surgeon-Captain J. Davidson, Bengal Establishment, are placed temporarily at the disposal of the Government of the North-Western Provinces and Oudh for employment on famine duty. Surgeon-Captain Narendra Prassanna Sinha, Civil Surgeon of Noakhali, is appointed on return from furlough, to act as Civil Surgeon of Puri until further orders. The services of Surgeon-Lieutenant C. D. Dawes are replaced at the disposal of the Government of India in the Home Department. The undermentioned officers on arrival from England are posted to general duty as follows:—Surgeon-Major Sloggett, to the Nagpore District; Surgeon-Lieutenant Morgan, to the Bombay District; and Surgeon-Lieutenant Dove, to the Bombay District.

NAVAL MEDICAL SERVICE.

The following appointments are notified:—Fleet-Surgeon Michael Fitzgerald to the *St. George*, additional for service in hospital ship *Malacca*. Staff-Surgeons: Alexander G. P. Gipps to the *St. George*, additional; William Eames to Plymouth Hospital; and Henry W. D. Walsh to the *Lion*. Surgeons: John Grant, George M'Gregor, Richard H. Way, and Edward Sutton to the *St. George*, additional, for hospital ship *Malacca*, and Richard A. Fitch to the *Excellent*.

VOLUNTEER CORPS.

Rifle: 1st Volunteer Battalion the Royal Sussex Regiment: Surgeon-Captain C. W. J. Chepmell, M.D., resigns his commission.

RETIREMENT OF BRIGADE-SURGEON-LIEUTENANT-COLONEL E. J. FAIRLAND.

We regret to announce that news has reached us that Brigade-Surgeon-Lieutenant-Colonel Fairland (at present Assistant Professor of Military Medicine at the Army Medical School, Netley and officer in charge of the medical division of the Royal Victoria Hospital) has been obliged, owing to private affairs, to decline the offer of promotion to the rank of Surgeon-Colonel, the acceptance of which would necessitate his going out to India at an early date. We feel that this intelligence will be received with great regret, not only by his departmental brother officers, but also by the officers and men of the army, for Brigade-Surgeon-Lieutenant-Colonel Fairland has ever discharged his duties in a thoroughly conscientious and most able manner, and his kindness of heart, firmness, and courtesy to those of all ranks have deservedly rendered him one of the most popular medical officers of the army. His retirement is a distinct loss to the Service, and it is to be regretted that private affairs have obliged him to send in his papers at a time when his promotion to administrative rank would have opened up a new field of usefulness and activity. Brigade-Surgeon-Lieutenant-Colonel Fairland was gazetted a staff assistant surgeon on April 1st, 1867. He served in the Abyssinian Campaign from September, 1867, to October, 1868, receiving the Abyssinian medal for his services; and in July, 1869, was gazetted assistant surgeon in the 21st Hussars, with which regiment he remained stationed at Umballa and Lucknow till the warrant creating a unified medical department was issued in 1873. In November, 1873, he was appointed staff surgeon at Lucknow by Sir Henry Tombs, V.C., K.C.B, G.O.C., and he held the post until 1880, receiving the thanks of Government for duty during the cholera epidemic and for his successful administration of the lock hospitals. From 1880 to 1882 he served at Pachmari, and subsequently as staff surgeon at Devonport. In May, 1883, he proceeded to Peshawur, where he was in medical charge of the Station Hospital and staff surgeon until the April of 1887. He was afterwards at Pachmari from 1887 to 1889; in medical charge of Dover Castle, and for many months acting Principal Medical Officer of the South-Eastern District during the years 1889, 1890, and 1891, and at Bermuda from April, 1891, until September, 1892, where he was in medical charge of St. George's and for some months senior medical officer. In 1892 the late Director-General summoned him home to fill his present office. When in the year 1879 Brigade-Surgeon-Lieutenant-Colonel Fairland, then a Surgeon-Major, relinquished his post at Lucknow, the Lieutenant-General placed on record by the hand of his Assistant-Adjutant-General his high approval of Surgeon-Major Fairland's work in these terms:—"The Lieutenant-General considers it a duty to express the very high opinion he entertains of your admirable services as staff surgeon. He desires me to say that no one could excel you in your estimate of the requirements of duty, nor could anyone bring to them more earnest attention or greater singleness of purpose. It is his especial privilege to be the mouthpiece of the members of this community, ladies as well as gentlemen, not forgetting the many members of the non-commissioned grade, all of whom look to you for

skill and kindness with a confidence which speaks for itself. The Lieutenant-General desires me to particularly dwell upon the devotion with which you daily visit the military prisons. This and the subject of your general discharge of duties are known to His Excellency the Commander-in-Chief." These extracts, although referring to only a few years of Brigade-Surgeon-Lieutenant-Colonel Fairland's work, may be taken as a faithful description, not only of the manner in which he has discharged his duties, but of the esteem in which he has been held ever since he entered the army.

DEATHS IN THE SERVICES.

Deputy Inspector-General Frederic John Mouat, M.D., F.R.C.S., LL.D. (retired), formerly Inspector-General of Prisons, Bengal, and late Inspector, Local Government Board, on Jan. 12th, aged eighty-one years. He was at one time Justice of the Peace for Calcutta, Professor of Chemistry and Materia Medica and Chemical Examiner to the Government, Professor of Medicine and Medical Jurisprudence and First Physician of the Medical College in Calcutta, and Secretary of the Council of Education, Bengal. For two years (from 1890 to 1892) he was President of the Royal Statistical Society, and was a Fellow of the Royal Geographical Society. He was also a Fellow of the Society of Arts, and member of the Faculties of Medicine and Arts of the Senate of Calcutta University. An obituary notice of the deceased officer, who was a valued contributor to the columns of THE LANCET, will be found on page 282.

THE BENIN EXPEDITION.

As we anticipated last week the treacherous conduct of the King of Benin has led to a punitive expedition being ordered to proceed to the West Coast of Africa. Two cruisers, the *Theseus* and *Forte*, have already started, having on board 544 and 318 officers and men respectively. The *Bathurst* has been commissioned for conveying stores. The Oriental Company's steamer *Malacca* has been chartered for service as a hospital ship.

LEAN'S ROYAL NAVY LIST.

The January issue of this up-to-date publication lies before us. It is now too well known to need any description, and we need only remind those who are in any way interested in Naval matters that the new quarterly issue can be obtained from the publishers, Messrs. Witherby and Co., 326, High Holborn, and 4, Newman's-court, Cornhill.

Viscount Wolseley is stated to be recovering from an attack of jaundice. The Commander-in-Chief is expected to be able to resume his post at the Horse Guards almost immediately.

Notification has been received intimating the departure from Bombay on Dec. 24th, 1896, of the transport *Victoria*, with forty-five invalids for the Royal Victoria Hospital, Netley.

LITERARY INTELLIGENCE.—The Rebman Publishing Company, Limited (11, Adam-street, Strand), have ready a small work by Dr. F. W. Forbes Ross on alimentary and digestive derangements in infants and young children entitled "Intestinal Intoxication in Infants."

UNIVERSITY OF CAMBRIDGE.—Dr. James Ward, Fellow and Tutor of Trinity College, and well known for his contributions to psychology, has been appointed to the new chair of Mental Philosophy and Logic. Dr. E. Barclay Smith has been appointed Senior Demonstrator of Anatomy, and Dr. F. C. Kempson, Junior Demonstrator. At the congregation on Jan. 14th the following were admitted to the degrees of M.B. and B.C.: W. Langdon Brown, of St. John's College; A. L. Tatham, of Gonville and Caius College; A. F. Shoyer, of Trinity Hall; and G. A. Auden, of Christ's College. The following took the B.C. degree only: A. G. Butler and C. F. Lillie, of St. John's College; and F. W. H. Hutchinson, of Trinity Hall. Mr. W. Bateson, F.R.S., of St. John's College, is giving this term a series of lectures on the Study of Variation, a subject which he has made peculiarly his own. Dr. Alexander Hill, Master of Downing, will read a paper at the Cambridge Philosophical Society on Jan. 25th on the results he has obtained by staining the brain by the chrome-silver method.

Correspondence.

"Audi alteram partem."

A CENTRAL HOSPITAL BOARD FOR LONDON.

To the Editors of THE LANCET.

SIRS,—I am desired to send you a line in regard to an important meeting which is to be held on Monday next, the 25th inst., at 4.30 P.M., at the Royal United Service Institution. The question under discussion at that meeting will be the desirability of the establishment of a central hospital board for London. How large a measure of support the proposal has already received is indicated by the preliminary list of those who have consented to join the preliminary general committee that may be appointed for its promotion. Judging from this, it would seem that the medical profession in London is now in earnest in its desire to make some very needful reforms in the administration of the medical charities with which they are so closely connected. On points of detail there may be many differences, which can only be met by discussion and concession, but, in spite of these, one or two main propositions appear to receive general acceptance. They may be summed up as follows. That a central hospital board should be established on a representative basis. That in the development of the organisation of medical charity in London reliance should be placed, not on legal measures or compulsion, but on co-operation and publicity. That, with a view to carrying out measures for which there is in some cases urgent need, a central fund should be established in the nature of a permanent endowment for the large and liberal aid of hospitals for special purposes, such as re-building, &c., on lines similar to those already adopted with success by the Charity Commissioners in the establishment of polytechnics in the metropolis. Such a method of aid would not interfere with the voluntary contributions paid to hospitals by the general public year by year.

A further proposal is that, while the body which may be formed should, as representative of the hospitals, settle questions of general policy and discuss reports, &c., a competent executive committee should be created to deal with the various questions of detail that must necessarily arise. Further particulars in regard to the scheme will be found in the accompanying document. The scheme is submitted as a draft, but it is only right to add that it has been scrutinised by many members of the profession, and on various points modified in accordance with their suggestions. At the meeting on Monday a resolution in approval of the plan now suggested as a basis for practical organisation will be moved by Sir William Broadbent, Bart., M.D. Lond., and supported by the following:—Mr. G. D. Pollock, F.R.C.S. Eng., Dr. Lauder Brunton, LL.D., F.R.S., and Mr. Victor Horsley, F.R.S., and a general committee will be appointed. Invitations to the meeting have been sent to medical men throughout London, and I write this line to you in the hope that, in view of the importance of the subject, they may be induced to be present and take part in the meeting, in spite of the many professional engagements that devolve upon them.

I am, Sirs, yours faithfully,

C. S. LOCH, Secretary.

Charity Organisation Society, 15, Buckingham-street, Strand, W.C., Jan. 18th, 1897.

*** The document of which Mr. Loch speaks is reviewed in an annotation upon page 255 of this issue.—ED. L.

THE TREATMENT OF OMENTAL HERNIA WHEN ACCOMPANIED BY SYMPTOMS OF ABDOMINAL OBSTRUCTION.

To the Editors of THE LANCET.

SIRS,—The recent inquiry into the charge against a member of the staff of the Adelaide Hospital raises a question of considerable surgical interest—viz., the treatment of herniæ when symptoms of strangulation are present, but where on opening the sac it is found to contain no intestine, but omentum only. Under these circumstances the symptoms

are generally due, not to strangulation of the omentum, but to constriction within the abdomen of some portion of intestine which is bound down by an omental band continuous with the pedicle of the piece of omentum contained within the sac of the hernia. In the interesting editorial article on the case which appears in THE LANCET of Jan. 16th it is pointed out that under these circumstances two courses of treatment are open—viz., (1) to follow up the omentum to the crural ring; or (2) to perform laparotomy; the latter course being recommended as preferable if the patient's condition will admit it. It is my experience that without proceeding to the more serious operation of laparotomy relief will be afforded if—after ligaturing the pedicle and removing the omentum—the pedicle is carefully separated from all adhesions at the neck of the sac and then allowed to slip back into the cavity of the abdomen. In this way, by liberating the omentum, the strangulation of the intestine within the abdomen is at once relieved. This treatment I have found successful in four cases of strangulated (?) femoral omental hernia, one of which I have reported in detail in THE LANCET.[1] In each instance recovery took place, removal of the omentum in the hernial sac and liberation of the pedicle being at once followed by a subsidence of the symptoms of abdominal obstruction. The condition, which apparently is not very uncommon, I have only met with in old irreducible omental hernia of the femoral variety.

I am, Sirs, yours faithfully,

F. A. SOUTHAM.

Manchester, Jan. 18th, 1897.

"THE GLANDULAR FEVER OF CHILDHOOD."

To the Editors of THE LANCET.

SIRS,—In calling the attention of the profession to the *primâ facie* reasons for regarding glandular fever as a clinical entity Dr. Dawson Williams has, I think, done valuable service. It is largely on the observation and inferences of those engaged in general practice that further definite knowledge of the subject must depend, for the probable communicability and benignity of the disease must tend to exclude it to a great extent from the scope of ward and consulting practice. I am induced at this moment to write these few lines by having lately seen a child suffering from marked anæmia and other symptoms of ill-health whose ailments dated from an attack which, as described to me, seemed in all ascertainable points to tally with the account given by Pfeiffer of glandular fever. Two other children had suffered in the same way; all had had the glands on the neck enlarged and tender, none had had any marked throat trouble, and the affection was regarded as mumps with a difference, there having been apparently no swelling of the face. In the family, the mother, who was quite young, had also suffered slightly, but soon recovered completely. Most of those who see sick children are aware of cases, of no very infrequent occurrence, with fever and some degree of cervical adenitis which are not to be associated with any marked pharyngeal trouble, but are still (owing to glandular fever being, as Dr. Dawson Williams says, ignored) attributed to a hypothetical tonsillitis or other affection that has escaped observation. The examination, in future, of the lymphatic glands of the body generally and of the liver and spleen, in all such cases may go far towards giving us definite and important knowledge on this subject, to the literature of which Dr. Williams has given so interesting and practical a contribution in THE LANCET of Jan. 16th.

I am, Sirs, yours faithfully,

Harley-street, W., Jan. 18th, 1897. H. B. DONKIN.

To the Editors of THE LANCET.

SIRS,—I have read with interest the paper by Dr. Dawson Williams on Glandular Fever in THE LANCET of Jan. 16th. Four years ago, when registrar to the Hospital for Children and Women, Waterloo-bridge-road, three cases of fever of five or six days' duration, in which abdominal pain and very marked constipation were present, led me to think it possible that there might be an undescribed fever of short duration with constipation as a prominent symptom. I subsequently became acquainted with a description of glandular fever, and although I had not noticed any enlargement of lymphatic glands it seemed probable that these three cases were examples of that disease. That conclusion as to their nature may not have been correct, but they drew my attention to the existence of glandular fever, and since that time I have been on the lookout for it. Not, however, until the last week or two have I seen any case that seemed to be an undoubted example. A fortnight ago I was asked to see a girl aged eleven years who only a few weeks ago returned to Clifton from the house of a medical friend in North Ireland, where she had been laid up with a prolonged attack of rheumatism which seriously affected the heart. I found her looking very ill and disinclined to move, the disinclination being largely due to pain in the neck on turning the head. There was swelling in the region of the anterior triangle on either side of the neck, and on palpation the lymphatic glands lying in front of the anterior border of the sterno-mastoid muscle were found to be enlarged and very markedly tender. The lymphatic glands in the posterior triangles were not then examined, but a few days later it was mentioned that the back of the neck was noticed to be tender when the head was laid on a pillow. The glands in these triangles were then found to be enlarged. Those in the axillæ and groins were not affected. There was some difficulty of swallowing owing to a sense of constriction in the throat, but nothing abnormal could be seen. The temperature was raised for five days, reaching to between 102° and 103° in the evening and falling to 101° in the morning. There was obstinate constipation while the temperature remained raised. Two other children, aged nine years and thirteen years, had previously been similarly affected, but to a much slighter degree. Curiously enough, two adults also, between the ages of forty-five and fifty years, had suffered from tender, swollen glands in the neck, but nothing else had attracted their attention. There apparently had been no indication of fever and no difficulty of swallowing. Another case which I consider to be an example of this disease is at present attending the out-patients' department at the Children's Hospital and I intend to ask other medical men if they have noticed similar cases.

I am, Sirs, yours truly,

Clifton, Bristol, Jan. 18th, 1897. THEODORE FISHER.

"LIQUID VACCINE VIRUS."

To the Editors of THE LANCET.

SIRS,—I have seen an annotation under the above heading in THE LANCET of Jan. 2nd, but owing to my absence from England have been unable to take earlier notice of the matter. The statement is made on the authority of your New York Correspondent that, as the result of a series of experiments, the Public Health Department has decided that the best vaccine material is to be obtained by triturating the vesicle pulp with glycerine. This method of preservation is described as *new*, but I think I may justly claim that this is hardly the case, seeing that I demonstrated this means of producing absolutely pure vaccine lymph as long ago as 1891 at the meeting of the International Congress of Hygiene, held in London. On many subsequent occasions also, and especially in my evidence before the Royal Commission on Vaccination,[1] I have had occasion to direct attention to the value from a bacteriological point of view of this method. When properly applied it ensures the destruction of all extraneous microbes, such as those concerned in the various processes of an inflammatory nature which may happen to be present in the contents of the vaccine vesicle at the time of collection. Although this is the case, the addition of glycerine in no way impairs, but rather increases, the specific activity, as vaccine, of the resulting mixture.

I am, Sirs, yours faithfully,

S. MONCKTON COPEMAN.

Savoy Hotel, Berlin, Jan. 9th, 1897.

DR. R. R. RENTOUL AND THE MIDWIVES BILL.

To the Editors of THE LANCET.

SIRS,—The mis-statements and fallacies in Dr. Rentoul's address have most of them been refuted. As some may

[1] A Case of Intestinal Obstruction Relieved by Liberating the Omentum from an Omental Hernia.—THE LANCET, Aug. 14th, 1886.

[1] Final report of Royal Commission on Vaccination, para. 448.

still be misled by them, we ask permission to point out a few of the most important. He says: 'Owing to the action of a few practitioners, who contend that the wives of the poorer and wage-paid classes should have no one to help them during their confinements but midwives .....' We know of no one who advocates this. He speaks of a clause which "proposes to hand over all confinements, natural and abnormal, to the sole control of the midwife." There is no such clause. No one ever proposed to do such a thing. "All practical practitioners know that no labour can be definitely defined as 'natural' until some hours or days after the labour is over." Just so. No man can be pronounced healthy till he has been well examined after death, but a man can be pronounced healthy up to a certain point, and so can a labour be pronounced normal up to a certain point. "This threat to supply the poor with midwifery practitioners only partly trained in midwifery and wholly untrained in medicine and surgery ....." There is no such threat. Our effort is to replace untrained midwives by trained midwives. Dr. Rentoul says that Dr. Matthews Duncan states that one woman in every fifteen died in her first confinement. Dr. Matthews Duncan never said anything of the kind. "The proposal to establish a partially trained class of midwifery practitioners for the poor only is a crime-producing proposal." There is no such proposal. The proposal is to replace untrained persons by trained persons. Dr. Rentoul asks if we are "therefore to hand over this branch of the practice of physic to persons whose poverty, if not their will, would press them to perform illegal operations?" We think that the better persons are trained and controlled the less likely they will be to do illegal things.

We observe other mis-statements, but we have mentioned enough. It should not, however, pass without notice that Dr. Rentoul holds the opinion that "the poorer classes can do without midwives," and that the public rates should pay for proper attention to parturient women, "that the fee should be uniform for all kinds of labour, and that such fee should be 40*s*." The midwife already exists in large numbers and cannot be suppressed by any words or schemes of Dr. Rentoul. The only practical question is, not how she shall be supplanted, but how she can be improved.

I am, Sirs, yours faithfully,

ROWLAND HUMPHREYS, L.R.C.P. LOND.,
Honorary Secretary Midwives Bill Committee.

12, Buckingham-street, Strand, W.C., Jan. 19th, 1897.

DR. R. R. RENTOUL'S ELECTION EXPENSES.

To the Editors of THE LANCET.

SIRS,—The result of the General Medical Council election must be gratifying to the supporters of Dr. Rentoul's policy. We, the undersigned, think this an opportune moment for bringing to the notice of these supporters the heavy expenditure in which it has involved Dr. Rentoul, the sum of £85 17*s*. 6*d*. having been spent by him in stamps, stationery, and travelling. We feel that practitioners upon whose behalf he has so faithfully striven should defray this out-of-pocket expenditure. Also, we would state that since 1890 Dr. Rentoul has spent £375 13*s*. 8*d*. in opposing the four Midwives Bills. Of this, £351 12*s*. 8½*d*. has at various times been refunded, thus leaving £24 0*s*. 11½*d*. still owing, exclusive of interest. Dr. Rentoul is, like most of ourselves, in general practice, and we feel it to be unfair to ask him to give not only his time and work (which have been and are invaluable to the cause) but also his money on our behalf. We, therefore, with confidence ask his supporters to subscribe to a fund for the repayment of this £109 18*s*. 5½*d*. By this means practitioners will show practical appreciation of good work done, and will pave the way for more. We would point out that this is not a question of a testimonial, although if the response were as hearty as it ought to be this might also be considered. It is firstly and chiefly a question of paying back money out of pocket, spent—and most cheerfully and usefully spent—in furthering our interests. At the same time we would add that no time should be lost in establishing a Guarantee Fund so as to be ready to fight the next Midwives Bill, and to help in drafting and securing the passing of a Bill for Increased Direct Representation upon the General Medical Council. For these purposes about £1500 will be required, and considering the handsome and prompt response of the profession in many cases—e.g., Dr. Cullingworth's expenses—no difficulty should be experienced in raising this money for such important objects. We have Dr. Rentoul's statement that he cannot advance any more money for these purposes, although he is both willing and ready to give both work and time.

Donations will be gladly received by Dr. A. Cox (Gateshead) and will with your permission be acknowledged in your columns.—We are, Sirs, yours truly,

COLIN CAMPBELL,	FRAS. J. A. WARING,
J. A. MYRTLE,	DONALD FRASER,
CLEMENT H. SEBS,	WALTER LATTEY,
J. WHEELER O'BRYEN,	JOHN E. GARNER,
W. E. BARTON,	W. A. WETWAN,
JOHN R. WILLIAMS,	J. B. CLOSE,
J. M. FERGUSON,	ALFRED COX (Hon. Sec.).

West View, Gateshead-on-Tyne, Jan. 20th, 1897.

"THE LATEST VIEWS ON PHTHISIS."

To the Editors of THE LANCET.

SIRS,—I have been very greatly interested in the letter of your correspondent at Rome on the above subject,[1] because in all the editions of my book I have mentioned facts tending to show that phthisis is quite as likely to prove a disease of nutrition as of infection, or a mixture of both; and, as will be seen in my third edition (p. 300), these facts have gained considerably in importance of late years. I should like also to direct the attention of your readers to the recent writings of Professor T. J. Mays of Philadelphia and his treatment of phthisis by excess of albuminous food and large and long-continued doses of strychnia.[2] I have recently had a case under my care which I showed at the Æsculapian Society treated by this method, in which the results appeared to be quite as good as those recorded in America, and greatly exceeded my previous expectations. I am well aware how dangerous it is in a disease like phthisis to build anything at all upon a few cases, and but for your correspondent's letter I should not have mentioned the matter just now. Still, I do think that the above facts are well worthy of the careful attention of those who, like the Milanese and some American pathologists, are prepared to look all round the bacillus.

I am, Sirs, yours faithfully,

Brook-street, W., Jan. 18th, 1897. ALEXANDER HAIG.

QUACKS AND UNCERTIFIED DEATHS.

To the Editors of THE LANCET.

SIRS,—The enclosed cutting from a weekly paper of some standing and with a large circulation in this county may be of interest to you as showing the publicity, and therefore encouragement, at times given by the press to the efforts of quack doctors to hoodwink the public.

In some districts in this county unqualified medical practice prevails extensively; in one urban district, for instance, of 18,000 population over 33 per cent. of the deaths during 1896 were uncertified, as the result of unqualified medical attendance; and the Durham county council, recognising the dangers of such practice and the fact that it interferes with the accuracy of the vital statistics and with the precautionary measures taken against the spread of infectious diseases, have, by representations to the Local Government Board, the Registrar-General, and the General Medical Council, been endeavouring to put a stop to such illegal practice. Such newspaper reports as the enclosed, however, are calculated to encourage unqualified practice and are in my opinion much to be regretted. The "Dr." Steele referred to in the cutting was a year or two ago successfully prosecuted and heavily fined for an offence against the 40th section of the Medical Act, 1858, his occupation to within eighteen months of the date of the prosecution having been that of a coalminer. Such punishment, however, instead of acting as a deterrent appears to have enlisted the sympathy for the offender of many persons in the district, with the result that not only has his practice not diminished, but he was very soon afterwards elected a member of the district council.

At their last meeting, I believe, the General Medical

[1] THE LANCET, Jan. 16th, 1897, p. 214

[2] American Medico-Surgical Bulletin, May 15th, 1894, and May 9th, 1896. See also New York Medical Journal, Feb. 15th, 1896.

Council decided to call the attention of the Registrar-General to the unsatisfactory practice adopted by some registrars of births and deaths of registering deaths uncertified as the result of unqualified medical practice without communicating with the coroner, and without doubt the holding of coroners' inquests with regard to all uncertified deaths is the most effective, if not the only practical, means of stamping out unqualified medical practice.

I am, Sirs, yours faithfully,

Durham, Jan. 19th, 1897. T. EUSTACE HILL.

*** Dr. Hill encloses a report from the *Durham County Advertiser* of a meeting at which "Mr. J. Tempest, M.D., L.L.D." (*sic*), of Accrington delivered an address on the "History of Medicine." The learned L.L.D. inveighed against the monopoly enjoyed by the medical profession in the treatment of suffering humanity, and against the action of a coroner in refusing to accept a death certificate from a person (not the "Dr." Steele above referred to) practising the "American Reform System of Medicine." The *Durham County Advertiser* must have been sadly in want of readable matter when it printed such mischievous nonsense.—ED. L.

"THE HALF-YEARLY MEETING OF THE FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND."

To the Editors of THE LANCET.

SIRS,—I have nothing more to say about Mr. Anderson, but as Mr. Rivington has referred to a portion of my speech which was not reported I may say that I pointed out that the same little clique which runs the Association of Fellows had also run Mr. Rivington for the General Medical Council, Mr. Anderson being one of the honorary secretaries of Mr. Rivington's committee. I denied then, as I do now, that Mr. Rivington's efforts on behalf of the Members had led *to the sacrifice of his collegiate interests* as put forth by his committee, and now that Mr. Rivington has supplied me with the date, 1886, I am able to prove it. In August, 1886, Mr. Rivington was a candidate for the post of Examiner, but was not elected because in the opinion of the Council there was a more eligible candidate. I find from your columns that Mr. Rivington took no part in the meeting of Fellows and Members in March, 1884, or November, 1885, and that at the meeting in November, 1886, he made his first speech on behalf of the Members. In a letter of the following week Mr. Rivington mentions that he wrote upon the subject in 1868, and later in his oration at the Hunterian Society and his Carmichael Essay, but I can assure him that none of these literary efforts in any way affected his non-election as an examiner. I am, Sirs, yours faithfully,

Cavendish-square, W., Jan. 18th, 1897. CHRISTOPHER HEATH.

PILOCARPINE IN ECLAMPSIA.

To the Editors of THE LANCET.

SIRS,—I regret that unexpected and unavoidable absence from the meeting of the Obstetrical Society of London on Wednesday, Jan. 6th, prevented my hearing the remarks of Dr. John Phillips and Dr. Herman on my notes of a case of eclampsia occurring at the fifth month, and in which the uterus was emptied. As these notes will be published in full I only take the opportunity of saying here that no one, after eighteen years of its employment, is better aware of the physiological effects of pilocarpine than myself or of the responsibility attaching to its use in certain cases. On the other hand, I desire emphatically to assert that in this particular instance it is my belief that it was the pilocarpine that ultimately saved the patient's life. It was injected but *once*, and in quantity only the tenth of a grain, and its use was followed after the immediate development of its physiological effects by rapid reduction of the high arterial tension, entire cessation of convulsions, which up to that moment had been of frequent recurrence, and the consequent return to consciousness of the patient. But it was not from the therapeutical aspect of the case that I was principally influenced in reporting it. There were several other points of considerable clinical interest—viz., retroversion of the uterus as a cause of the eclampsia, the retinal symptoms and appearances as indications of the approaching cerebral complications, the occurrence of glycosuria from the chloroform administered, and the rapid disappearance of the albuminuria which had been present in such quantity prior to the emptying of the uterus. The administration of such a remedy as pilocarpine must always depend on the circumstances of the individual case in which it is applied and the judgment of the practitioner who employs it. Nothing I said in my short paper could be construed into an advocacy of anything so rash as its routine employment in eclampsia.

I am, Sirs, yours faithfully,

H. MACNAUGHTON-JONES.

"A QUACK AND HIS VICTIM."

To the Editors of THE LANCET.

SIRS,—Will you allow me to state, in reference to your annotation on the prosecution of one George at Burnley for obtaining money by false pretences, that the Medical Defence Union initiated and paid the costs of the case? The result was most satisfactory, as the prisoner was sentenced to twelve months' imprisonment with hard labour.

I remain, Sirs, yours faithfully,

Jan. 19th, 1897. A. G. BATEMAN, M.B. Aberd., Gen. Sec.

HOSPITAL ABUSE.

(BY OUR SPECIAL COMMISSIONER.)

V.—MANCHESTER (*concluded*).[1]

Subscribing Patients.—The Competition of Charitable Provident Dispensaries—The Lowering of the Standard of Work performed by Town Practitioners.

HAVING described at length what has been done to prevent abuse at the Royal Infirmary I must now consider briefly the position of some of the other large Manchester hospitals. There was, I found, a general consensus of opinion that little or no abuse existed at the Ancoats Hospital. The surrounding population is so extremely poor that one of the difficulties in treating the patients is their inability to obtain sufficient nutriment. For this reason those who could be treated as out-patients have sometimes to be sent to the Poor House Infirmary or taken as in-patients, so that they may receive sufficient food. One visiting physician attached to this hospital did, however, complain that general practitioners were apt to be very generous at other people's expense. If their paying patients were anxious for a second opinion they would give them a recommendation to a hospital, and thus secure for their patient this second opinion free of all cost.

A much better class of patients frequent the Hospital for Consumption and Diseases of the Throat. At this hospital the out-patients are called upon to contribute towards the expenses of the drugs. Most of the out-patients pay for their cod-liver oil and a few subscribe as much as 2*s.* 6*d.* a week for medicines. Some of these are certainly too well off to come to the hospital, but it is difficult to accuse a patient of abusing a charity when he pays half a crown a week. The acceptance of payments greatly complicates the situation, for it is then almost impossible to establish a wage limit or to know where to draw the line. This contribution for drugs is voluntary, but it is so considerable as to defray nearly the whole of the expenses. Thus in 1895 the expenditure for medicines and dispensary expenses is set down at £759 8*s.* 3*d.*, and the receipts of voluntary contributions from the out-patients amounted to £704 18*s.* 6*d.* These are remarkable figures, and whatever fault may be found with the principle involved it would be difficult to persuade the managers of the hospital to abandon a system which gives such advantageous practical

[1] The previous articles on this subject were published in THE LANCET on the following dates: (1) Sept. 26th, 1896, Plymouth and Devonport; (2) Oct. 10th, 1896, Exeter; (2 *continued*) Oct. 17th, 1896, Exeter; (3) Oct. 31st, 1896, St. Thomas's Hospital, London; (4) Nov. 14th, 1896, Liverpool; (4 *continued*) Nov. 21st, 1896, Liverpool; (4 *continued*) Dec. 12th, 1896, Liverpool; (5) Jan. 2nd, 1897, Manchester; and (5 *continued*) Jan. 9th, 1897, Manchester.

results. Also, the management naturally objects to the absolutely destitute. What is the use of medicine where there is not enough food? On the other hand, if the patient is not absolutely destitute, why should he not contribute, be it but a penny or two, towards the cost of his medicine? Abuses, however, naturally arise. Thus some patients who pay 2*s.* 6*d.* a week have no special illness. Their complaints are simple complaints. They do not stand in need of a second opinion or the constant advice of a consultant, and with the half-crown that they pay to the hospital they could obtain all that is necessary from an ordinary practitioner. By a more careful inquiry into the financial position of the patients this evil is being reduced; but it still exists. Thus while I was at the hospital a youth presented himself as an out-patient, and, in answer to questions, said he was not at work. On being further pressed he admitted that though he was not in regular employment he did work for his father, who was a joiner and builder. He estimated his father's income at thirty shillings a week which for a master builder was evidently below the mark. This case was referred to the secretary for inquiries. Another evil also results from the system of payment for medicines. An impression has gained ground that patients are not admitted who do not pay. This is very regrettable and quite against the object of the charity. The payments are only voluntary, and those who really cannot pay are welcome. They may even have cod-liver oil free of any charge. Nevertheless, on the day of my visit I found that only 7 per cent. of the out-patients had failed to contribute towards the cost of the medicines, and I was told that this was above the average.

Inquiries are made as to the financial condition of the patients who betray themselves by their language or dress. Yet if they make a fraudulent declaration as to their earnings, and this is discovered too late to prevent the admission of the patient, it is considered that there is no redress possible. Some applicants, however, at once declare they are able to pay, that they are under the treatment of a general practitioner, but want a second opinion. These patients are not accepted. They, however, sometimes further explain that though they can pay for their medicine and for the advice of a general practitioner they cannot pay a guinea for the advice of a consultant. In this case the visiting physician decides what should be done. If such applicants have an income of £3 or £4 a week the clerk, on his own responsibility, rejects them, or, to confirm this verdict, refers them to the secretary of the hospital. The number of applicants rejected is but small. It does not amount to one person per day, though there were 9373 new out-patients in 1894 and 8696 in 1895. Nor is there any attempt to enforce a distinct wage limit, for it is argued that some of the patients have not been working for some time because of their ill-health. For the in-patients of the hospital the inquiry is more strict, and as a consequence the subscriptions paid by the patients is much smaller. In 1895 there were 226 in-patients, showing a decrease on the two previous years. Their average stay in the hospital was sixty-three days. The cost amounted to an average of 15*s.* per week per patient and the average payments made by the in-patients amounted to 1*s.* 3*d.* per week. In 1894 this average was 1*s.* 1*d.* and in 1893 it was 1*s.* 6*d.*

One good point which I noted at this hospital, and, indeed, at most of the Manchester hospitals, is the dead set made against the system of recommendations. One of the consulting physicians related to me how, when he was at St. Thomas's Hospital, London, he had on one occasion to refuse two very urgent cases because some other and quite unimportant cases claimed admittance and had recommendations from a governor. According to the rule, he had no right to refuse the latter, and then there were no more beds available for the former and far more deserving cases. Recommendations are now almost done away with at the Manchester hospitals. The only argument in their favour is that some subscribers would be lost if they were deprived of this cheap form of patronage. But the loss thus occasioned would probably not be very great, and would be fully compensated by the reduction of prevalent abuses.

If the system of recommendations is thus disapproved and combated at the hospitals it is still in high favour with the provident dispensaries. For instance, at Hulme and Salford there are two charitable dispensaries to which employers and others subscribe and get recommendations in proportion to the amount of their subscription. Each recommendation entitles the bearer to three weeks' treatment. A large proportion of these recommendations are given by employers to their workpeople who could afford to pay. Also the public can go straight to the dispensaries, buy recommendations, and then fill up the ticket for themselves. The residential surgeon could certainly object to this; but in practice this is rarely done, especially if the surgeon intends ultimately to establish himself in the district. These dispensaries could not pay their way if they did not sell the recommendations and also sell drugs to the patients. It is a farce to call them charitable institutions when they are run on such a commercial basis. Nor is it surprising that the general practitioners should complain of the competition thus organised against them. As for these dispensaries making any serious inquiry concerning the financial means of their members all the general practitioners with whom I discussed the matter treated the suggestion with scorn. On their side, lay managers of dispensaries complain that medical men are not loyal to their profession or to the dispensaries. The medical men while in the service of a dispensary are interested in increasing the number of patients at their dispensary and are not over anxious to prevent abuses. Then, when the medical man has climbed up on the back of the dispensary and reached an independent position, he turns round and kicks the very institution where he himself created the abuses of which he now complains. As for sweating profits out of the medical profession, so far as the Manchester District Provident and Charity Organisation Society is concerned, the rule is that half the penny weekly subscription goes to the medical men and the whole of the 10*s.* midwifery fees. When all working expenses have been paid, two-thirds of the balance remaining in hand are given to the medical officers, and if there is any sweating it relates to the remaining third, which goes to constitute the reserve fund. Thus the lay managers of the dispensaries maintain that much of the abuse that exists is due to the indifference of the medical officers themselves, who have the power to reject patients. How far the control which the medical officers are said to be able to exercise is real I did not stop to inquire, as this is a question only indirectly connected with my present subject, and could be more appropriately discussed as part of the problem involved in the battle of the clubs. But it is quite certain that if the dispensary medical officers were very strict in rejecting patients who could afford to pay for private advice many disputes would arise between them and the lay members of the provident dispensaries. Such disputes have to be referred first to the board managing the local dispensary, and then can be brought before the Charity Organisation Society, which constitutes a sort of court of appeal. But as the latter is the parent of the former the question arises whether this is a truly impartial tribunal. In any case the complaints against the local provident dispensaries are, as I have already stated, numerous and bitter. They fail, we are told by the general practitioners, to act as a check upon the central hospitals. They do not divert the current of unsuitable cases from these hospitals; indeed, in some instances the belief is encouraged that the best means to gain admission to the hospital is to first join the provident dispensary. This accusation I found particularly applied to the Children's Hospital. Poor people were told to join the dispensary, and then they would get a recommendation from the dispensary to the hospital. Thus the dispensary receives the penny subscriptions from these poor people and the hospital does the work. How far this complaint is based on some isolated case or, on the contrary, arises from a more general and widespread abuse I am unable to say. All I now seek to bring forward is that these complaints, these accusations, have been made in my presence, with a view to my publishing the same. Whether or no these complaints are fully justified or somewhat exaggerated, they in any case serve to show the bitterness of feeling and the widespread discord and diversity of opinion between the medical men and the laymen who are concerned with the administration of medical charities.

In conversing with several general practitioners I noted a number of complaints which it seems to me deserve consideration. Thus one general practitioner insisted that many people now went to the hospital who a few years ago would have contrived to be attended at home. For instance, the general practitioner, often acting at the suggestion of his patient, called in a consulting surgeon, to whom the usual fee of two guineas was paid. Then the consulting surgeon was asked to exercise his influence at his hospital to obtain the admission of the patient, and thus the necessary operation was performed for nothing. But this comparatively

well-to-do patient occupied a bed which should be reserved for a much poorer class of people. Formerly, even very poor people, when some serious illness arose, were in the habit of gathering their friends together so as to raise a fund, and thus the operation or the expensive treatment was entrusted to a surgeon or physician, who received the usual fees. Now this rarely happened, for it was so much easier and, above all, so much cheaper to gain admission to a hospital. The money which in these cases used to go to the profession is now lost. Certainly some of the very ablest physicians and surgeons were on the staff of the hospitals, but how often was a patient obliged to content himself with the advice given by a student or by a nurse. Thus my informant had sent to the hospital one of his poor patients who was suffering from purulent ophthalmia. Yet though the patient had been there several times he had only seen the nurse. As for the abuse of hospitals one of my informant's patients had died in 1895 from pneumonia. During his last illness he had paid in medical fees the sum of £11. Then a consultant was sent for, to whom the two-guinea fee was given; but the patient recognised the consultant as the medical man who for several years had attended to him gratuitously at the hospital.

Why, I was asked, with some expressions of indignation, could not the medical profession be governed as well as that of the veterinary surgeons? The latter elected their own council and the council elected its own president. There was no confusing multitude of qualifications. The veterinary surgeons had but one diploma. Students in all parts of the country sit down to answer the same written question on the same day and at the same hour. A diploma wherever obtained was of equal value to all other diplomas and the profession was self-governed.

Several general practitioners expressed the opinion that the out-patients' department at the hospitals should be done away with altogether. If patients could wait for several hours in the out-patients' rooms they could not be very ill and, therefore, did not need the superior advice which, it is supposed, a poor man can only obtain at the hospital. Many patients, however, did not go to the hospital for advice; their object was to obtain medicine cheaply or gratuitously. This was unfair to the dispensing chemists. These tradesmen had also much to say against the hospitals. For instance, a person suffering from epilepsy will go to a hospital month after month simply to get his supply of medicine renewed, when it would cost him but little more to buy the same from a druggist.

The fact that the tendency to resort to the hospital is becoming more and more general not only reduces the income of the general practitioner, but it has a direct and disastrous effect in lowering his sense of dignity. The greater number of cases of infectious fever are now removed to the fever hospitals. If there is a fracture, or a special eye, ear, or throat case the patients all rush off to a hospital. Little of interest remains for the general practitioner. In large towns the old family medical man barely survives this competition. When a medical man goes to a family and remembers that he has brought into the world several of its members he feels that he is an old friend of the household. There is a link of affection and interest between him and his patients which converts his profession into a work of love and has an elevating, softening, and humanising effect. The medical man is proud of his calling and devotes his best abilities to his work. Nothing is so stimulating as the sense of respect which he inspires and the feeling of responsibility which weighs upon him. Nothing hurts a medical man more than to be treated as a tradesman. A poor patient who shows proper respect is preferable to the rich patient who thinks there is nothing else required from him but a good fee. It does not suffice to study financial conditions, a psychological analysis of the position of the general medical practitioner is also necessary. A brilliant house surgeon no sooner leaves his hospital to set up in general practice than he finds he has no longer any interesting cases—they all go to the hospital. A striking comparison might be established between the case-list of a town and a country practitioner. Formerly a town practitioner was considered to be the more skilful or the more experienced of the two. The tables have been entirely turned of late. For instance, I was told of a country practitioner who had in one week an amputation of the thigh, an operation for hernia, and a removal of the breast. In a town all these cases would have gone to the hospital. The general practitioner will cease to be a surgeon. In surgical cases he will at most be allowed to advise, to suggest, and to hold the sponge. This will tend to bring a totally different class of men into the profession. Commercial men will become general practitioners, for they will argue that they can earn a living without much trouble. They need not study, they will not assume any responsibility, they will win no glory, but they will not be troubled by any anxiety. They will not respect themselves and they will not be respected; but they may jog along easily, attending only to trivial, monotonous cases, and referring all other cases to the consultants or to the hospitals. The high medical education and training which medical men receive will be altogether useless. These men will have no difficult, responsible work to perform. There will be nothing ennobling about their profession. Yet it is to such a deplorable and degrading condition that the general practitioner is likely to be reduced by the competition of hospitals, specialists, and consultants. Such are some of the grievances of which the general practitioners complain; these grievances are felt very acutely and recently have found voice and expression in the agitation organised by the Manchester Medical Guild.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Manchester Board of Guardians.

A PROJECT, which will, no doubt, soon be carried out by the Manchester board of guardians, illustrates not only the humane but the thoughtful and intelligent spirit in which they carry on their onerous work. The visiting committee of the Swinton Schools reported in favour of the erection of a cottage home in the school-grounds. Alderman M'Dougall, in moving the adoption of the proposal, said they knew the special attention that was bestowed on the training of girls who were going out to service, but it was felt that more was needed and that a cottage home would aid in securing more thorough domestic training. It is proposed to provide accommodation for ten girls in training for domestic service and for five infants between the ages of two and four, to be placed under the care of a foster-mother. It will, of course, be under the control of the master and matron. The presence of the infants will, it is thought, be useful in enabling the girls to become accustomed to washing and dressing and the general care of children. A small room is to be provided for each girl, so that she may look after it and acquire habits of tidiness. It is thought that it will be well ultimately to erect two homes. The proposal was seconded by a lady guardian, Mrs. Hyland, and adopted. This is a satisfactory move in the right direction. It was next proposed and seconded that the board's annual subscription to the Manchester Royal Infirmary should be renewed. One of the guardians, however, raised a curious objection. As a trustee of the infirmary "he was present at the recent meetings, at one of which Sir John Harwood stated that the infirmary board had a fund of £200,000, and that but for the possession of that money they would not have entered upon their re-building scheme. Under these circumstances the ratepayers had no right to contribute £74 a year." It was pointed out that every year hundreds of cases were sent to the Royal Infirmary that would otherwise have to be treated at the workhouse hospital. The motion was carried with two dissentients, who apparently ignored the fact, known to most Manchester people, that the question of the re-building and enlargement of the infirmary is an old one which has become more pressing year by year, and would not be less urgent if there were no money in hand wherewith to build. It was also resolved, subject to the approval of the Local Government Board, to give a subscription of £50, as last year, to the Manchester Jewish Board of Guardians, a voluntary association of Jewish gentlemen who do much to relieve their own necessitous poor and thereby relieve the city rates.

Opposition to the Manchester Sewage Scheme.

At the last meeting of the Mersey and Irwell Joint Committee Mr. T. W. Killick presented a report of the consulting sub-committee with reference to the Manchester Corporation Bill, 1897. One of the clauses of the Bill is to the effect that the corporation may discharge into the Mersey the effluent from the sewage works at Davyholme. This is

objected to on the ground that no provision is made that the effluent, either when turned into the effluent conduit at Davyhulme or when discharged into the Mersey at Thelwall, "shall be satisfactory, or such as the joint committee would allow." Mr. Killick moved that a petition should be presented against the Bill with the view of so amending Clause 25 as to provide specifically that the effluents whether at Davyhulme or at Thelwell, "shall be subject to the provisions of the Rivers Pollution Prevention Act, 1876, and the Mersey and Irwell Joint Committee Act, 1892." After a prolonged and somewhat acrimonious discussion and the rejection of an amendment, which was moved and seconded by the corporation members of the committee, by 12 to 3, the resolution was carried. At the same meeting "Sir Henry Roscoe was re-appointed chemical adviser to the joint committee for one year at a salary of £725, such sum to include travelling expenses." Some sympathy may be felt for the corporation members of the committee, and especially perhaps for Alderman Joseph Thompson, the vice-chairman, who was in the chair at this meeting, but did not vote. Punishing others for their misdeeds must give rise to emotions so very different from those produced when punishing themselves. Warrington seems also to be entering the lists against the Manchester Bill.

A Burial Scandal.

From some facts which transpired at the meeting of the Ashton-under-Lyne Town Council, on the 13th inst., it seems that some of the churchyards there are in a disgraceful and dangerous condition. The minutes of the Sanitary Committee contained a resolution to present copies of orders of the Privy Council regulating burials in Ashton to the rectors and the vicars of Christ Church and St. Peter's Church respectively. It appears that these orders have been ignored for years. A Mr. Pownall said that the orders were "irrational, impracticable, and impossible," and that "the rule that only one body should be buried in one grave was absolute nonsense." Mr. Kelsall spoke from a sanitary point of view and described burials when "from the awful stench the mourners had hurried away from the graves of their departed friends; he had seen foul gases oozing from the graveyard of Christ Church which reminded him of Dante's description of such exhalations being compared to the 'sighs of the damned.'" Allowing for this poetical imagary, it is clear that a bad state of things exists. He spoke of paupers being "buried in trenches, with a very little layer of earth between each, and how coffins had sunk in water and sawdust had been used to conceal the oozings of drainage into graves," which he said was the condition to-day. Cremation was suggested, but public feeling is scarcely ready for it to be made compulsory. The Town Clerk said that the Council was not responsible for the contravention of the orders of the Privy Council. But if the Corporation is the sanitary authority it is surely responsible for allowing this overcrowding of the graveyards to continue unchecked for years.

Manchester Medical Society.

At the annual meeting of the Manchester Medical Society, which was held at Owens College on Jan 13th, the following gentlemen were elected officers for the ensuing year:—President: Dr. Steell. Treasurer: Dr. Glascott. Secretary: Mr. W. Coates. Committee: Dr. Edge, Dr. Faulkner, Dr. T. A. Helme, Mr. H. Lund, Dr. Milligan, Dr. Railton, Dr. Reynolds, Dr. John Scott, Mr. W. P. Stocks, Dr. Torrop, Dr. Wild, and Mr. G. A. Wright. The society has at present 373 members and is in a prosperous condition; seven ordinary and three clinical meetings were held during the past year, with an average attendance of forty-four members. Whilst the phenomena of the Roentgen rays were as yet a scientific novelty the society gave a practical proof of its readiness to encourage research. After the delivery of an address by Professor Schuster in the chemical theatre at Owens College on the Medical and Surgical Aspects of Roentgen's Discovery,[1] the society established a guarantee fund for six months to provide for investigations to be undertaken in Professor Schuster's laboratory. At the end of the six months it was only found requisite to call in a fourth of the £200 which had been guaranteed, and it was not considered necessary to prolong the arrangement.

Jan. 19th.

[1] THE LANCET, March 28th, 1896, p. 892.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

A Conjoint Pathologist for Scottish Asylums.

AN important scheme is being matured in Scotland with a view to the appointment of a conjoint reserve pathologist for Scottish asylums. A meeting of a number of superintendents of asylums was held last month at which a committee was appointed to draw up a scheme; it consists of Dr. Clouston, Dr. Yellowlees, Dr Urquhart, Dr. Carlyle, Dr. Johnstone, Dr. Macpherson, and Dr. G. M. Robertson. It is proposed that the various asylums should contribute a sum of £500, of which £400 should be paid to the pathologist appointed. It is hoped that accommodation may be obtained in the new buildings occupied by the Royal College of Physicians' Laboratory in Edinburgh. The pathologist's duties are set forth as follows:—1. To examine material sent from the asylums and to furnish reports. 2. To carry on original researches upon the pathology of insanity. 3. To give instruction to members of the medical staff of associated asylums, free of charge, in the pathology of mental diseases and in laboratory methods. 4. To assist, if required, the medical staff of associated asylums in pathological researches. 5. He shall devote his whole time to the duties of his office.

University of St. Andrews.

At a meeting of the University Court, on the 13th inst., plans of a proposed building for the accommodation of the medical classes were submitted. The site selected is within St. Mary's College gardens. It was decided to proceed with the buildings as soon as the necessary funds could be procured. This essential condition, however, was promptly realised, for immediately after the decision was taken the Lord Rector, the Marquis of Bute, announced that, provided a proper guarantee were provided securing the building for the purpose for which it is to be erected he himself would be at the expense of erecting it. This was agreed to and a vote of thanks passed to his Lordship. The Marquis of Bute also intimated his willingness to provide salaries for the lecturers on physiology and modern Greek during the next two years. Miss Umpherston, L.R.C.P. Edin., was appointed to be lecturer on physiology. It was agreed to raise the salary of the Chandos chair of Medicine and Anatomy to £500, exclusive of fees, by addition from the Berry bequest fund.

Maternity Hospital for Dundee.

The sum of £5000 having been devoted to this purpose in the Cobb bequest, the directors of the Dundee Infirmary were approached on the matter and undertook to found and maintain a maternity hospital provided the sum of £10,000 were placed in their hands. The additional £5000 has now been raised by subscription and the entire sum handed over to the infirmary directors.

Presentations to Medical Men.

Mr. H. E. Jones, M.B. Glasg., of Glasgow has been presented with a barometer by the members of the ambulance class he has recently conducted on behalf of the Scottish Girls' Friendly Society.—Dr. Duncan Macartney has also received a presentation from the members of his ambulance class.—At a recent meeting of the members of the Grove-street Institute, Glasgow, an address embodying a vote of thanks was presented to Mr David Dinwoodie, M.B., in acknowledgment of a course of lectures he has recently delivered in the institute.

New Fever Hospital for Dumbarton.

The local authorities of the burgh of Dumbarton and the western district committee of the county council have agreed to the erection of a joint hospital for the reception of cases of infectious disease.

Glasgow University.

The following awards of bursaries and prizes in the faculty of medicine have been intimated: Brisbane bursary of £42 for four years—C. C. Cuthbert, M.A.; Highland Societies Bursaries, £25 each for four years—A. Maclean and J. Stewart, M.A.; Lorimer Bursaries, each £20 for three years—J. D. Lickley and Allen Martin, M.A.; Merchants' House Bursary, £25 for four years—F. J. Henry; Mackintosh Bursary, £30 for one year—T. Hunter, M.A., B.Sc.; Senior Arnott Prize (25) for an examination in physiological physics—A. L. Watson, M.A.; Junior Arnott Prize (£15)—R. M. Clark. At the January meeting of the Queen

Margaret College Medical Club an address was delivered by Dr. C. O. Hawthorne on "Some of the Aspects of the Mental Discipline associated with the Study of Medicine."

The Scottish Poor-law Medical Officers' Association.

The Scottish Poor-law Medical Officers' Association, which was formed towards the close of 1895 has been several times mentioned in the columns of THE LANCET. Its objects are to raise the status of poor-law medical officers and to provide a channel through which all defects in the poor-law medical service may be brought to light and discussed, with a view to their removal. All past and present poor-law medical officers residing in Scotland are eligible for membership, and all persons interested in poor-law medical reform are eligible for election as honorary members at any general meeting. The first meeting took place on Dec. 9th, 1895, and the council will submit their report on the first year's working at the annual meeting to be held in the North British Station Hotel, George-square, Glasgow, on Jan. 27th. The council made every endeavour to have Scotland included in the scope of the Poor-law Officers' Superannuation Bill, which passed into law last session, but it was found that there were insuperable obstacles of a technical nature. In pursuance of this object deputations to the Local Government Board and to the Secretary for Scotland proceeded to Edinburgh; a deputation also visited London for the purpose of interviewing members of Parliament, and a numerously signed petition was presented to Parliament by Mr. Alexander Cross, M.P. for Camlachie (Glasgow). Much attention has also been given to the subject of tenure of office. Poor-law medical officers in England can only be removed from their appointments with the consent of the Local Government Board, but parish councils in Scotland claim that they can appoint and dismiss medical officers at pleasure without any control on the part of the Local Government Board. This matter was discussed at the British Medical Association meeting in Carlisle, and has been brought before the Local Government Board with a view to a decision being arrived at. Dr. William Bruce (Dingwall), Direct Representative for Scotland in the General Medical Council, is the honorary president of the association, and the secretary is Dr. Alexander M. Murdoch, 17, Broad-street, Mile-end, Glasgow.

Sanitary Work in Aberdeen.

During 1896 the sanitary staff of the city paid 17,390 visits in regard to infectious diseases and disinfected 4314 houses where cases occurred 1558 patients were removed to hospitals and 4430 patients supervised at their homes. There were 4848 inspections in the unwholesome food branch, and 64¼ tons of meat, &c. (including 88,186 lb. of fish and 45,022½ lb. of beef), were seized and destroyed, or sold for manure, chiefly with the consent of the owners. Of 205 seizures only 6 had to be dealt with by magistrates; legal proceedings were instituted in 5 cases, and the fines imposed amounted to £28. Considering the magnitude of the fishing industry and of the provision trade in Aberdeen there was thus little attempt to dispose of objectionable articles for human food.

University of Aberdeen.

The "squatters" who took possession of the old premises in Longacre and lived there without paying any rent have now all been ejected so as to allow the building of the new south wing at Marischal College to be proceeded with. These poor people are being temporarily housed in the premises which will shortly have to be demolished to permit of the erection of the corporation model lodging-house. The University Court has declined to commit itself at this stage as to the most appropriate mode of celebrating locally the Queen's "diamond jubilee." This attitude is held to mean that a movement to improve the University buildings extension fund will be made. A scheme for erecting, at a cost of £3000, a marine laboratory and aquarium, the scientific work in which would be undertaken by the University, also finds favour.

Jan. 19th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Royal College of Surgeons in Ireland.

MR ROBERT LAFAYETTE SWAN has just been elected Vice-President of the Royal College of Surgeons in succession to Mr. Kendal Franks, who, it will be remembered, resigned that office before leaving Dublin for South Africa. The place on the College council rendered vacant by the election of Mr. Swan was conferred on Dr. Lambert Ormsby. On Saturday evening Mr. William Thomson entertained at dinner his Excellency the Lord-Lieutenant and a numerous company.

Sending Patients to Unqualified Practitioners.

It would seem that at last the objectionable practice which prevails on the part of boards of Poor-law guardians in some parts of Ireland of sending patients threatened with hydrophobia to be treated by unqualified practitioners is about to be stopped. According to the *Newry Telegraph* the Local Government Board have decided that the sending of patients suffering from hydrophobia to McGovern of Cavan for treatment is illegal, and proceedings are about to be instituted in a test case against certain Poor-law guardians of the Newry Union for sending patients of this class to McGovern.

Dublin Hospital Fêtes.

A number of entertainments have recently been given here in support of the smaller city hospitals. On Saturday a performance in aid of the Children's Hospital, Temple-street, was given at the Star Theatre of Varieties under the special patronage of his Excellency the Lord-Lieutenant and the Countess Cadogan, while on Monday evening there was a most successful amateur representation of Mr. Sydney Grundy's comedy, "A Pair of Spectacles," at the Ancient Concert Rooms, the proceeds of which are to be given to the National Lying-in Hospital, Hollis-street.

The Beri-beri Epidemic.

At the last meeting of the board of governors of the Richmond Asylum Mr. Donelan, the acting medical superintendent, reported that the epidemic of beri-beri was distinctly on the decrease, only 1 case having been admitted to hospital since the previous board meeting. The numbers still under treatment are 26 men and 36 women, the total number treated from the commencement of the outbreak to the present time being 115, including 7 nurses. The board authorised the employment of a special nurse trained in the art of massage for the benefit of some of the patients of a paralytic and chronic type, and a skilled "masseuse" has accordingly been obtained from the Mater Misericordiæ Hospital.

The Admission of Cases of Delirium Tremens into Workhouses.

At a meeting of the Belfast board of guardians, held on Jan. 12th, it was decided that persons suffering from the effects of delirium tremens should be admitted to the workhouse and charged the full cost of their maintenance. As an indication of the extraordinarily defective working of the Irish Poor-law system, a guardian stated that a few weeks before a man had died in the Belfast Workhouse, leaving a legacy of £200 to an orphan society and having £4000 in the bank.

Coleraine Cottage Hospital.

At the annual meeting, held on Jan. 12th, the necessity of increasing the accommodation at this hospital was considered, and the committee were empowered to undertake this extension. A plan has been prepared by which two more wards or rooms can be provided for an increase in the rent of £10 yearly.

Curious Charms for Whooping-cough.

Considerable astonishment and amusement has been caused in Belfast by a case investigated at the coroner's court in which the treatment of whooping-cough by the passing of the child affected three times under a donkey was referred to. In his most amusing book, "Seventy Years of Irish Life," W. R. Le Fanu tells of two modes of dealing with the whooping-cough or "chin cough," as it is so generally called by the country people. One is this. If anyone should be seen riding on a piebald horse the father or mother of the person affected runs after him crying: "You that rides the piebald horse, what's good for the chin-cough?" Whatever the rider suggests is procured and given to the sufferer. This remedy is considered a very sure one by the peasantry, but is difficult to procure, as a man riding a piebald horse is not met with every day. The other mode of curing the disease is not considered so certain, but can more easily be procured, that is, passing the child three times over and under a donkey. Some donkeys are better than others. I remember a famous one in the southern part of county Down in which the rustics had great faith, and Le Fanu tells of one in county Cork so famous for curative powers that the owner, Ned Sullivan, supported himself and a large

family on what this remarkable donkey earned for him. This man used to perambulate the city of Cork and the surrounding neighbourhood with his ass, crying out: "Will anyone come under my ass for the chin-cough?" Two other charms which I have known to be used in county Down for this disease—and it is curious that whooping-cough and erysipelas (the rose, as the Irish peasants often call it) are the affections most treated by charms—are the administration to the patient of two kinds of foods (solid and liquid) obtained from two first cousins who are married, and soup made from the tails of mice. Staying several years ago with an uncle and aunt who were full cousins I was amused at the parents of children with whooping-cough coming to them for two different articles of food for their sick children.

The Forster Green Hospital for Phthisis.

The first annual meeting of the Forster Green Hospital for Consumption and Chest Diseases was held in Belfast on Jan. 15th. On Nov. 2nd, 1896, the Master of the Rolls sanctioned the amalgamation of the Belfast Hospital for Consumption with the Forster Green Hospital. The receipts for current expenses from all sources amounted to £1065 4*s.* 9*d.*, while the expenditure was £1035 8*s* 9*d*, leaving a balance of £29 16*s.* in the hands of the treasurer. The endowment fund has been increased by donations amounting to £140. Rapid progress has been made with the alterations and additions at Fortbreda House, the place presented by Mr. Forster Green, for the new hospital. During the year there were 796 new extern and 97 new intern patients. The Marquis of Dufferin and Ava was present at the meeting and made one of his most admirable speeches and stated that in view of the fact that phthisis had been a special scourge and curse to the city of Belfast and the north of Ireland generally he thought he might fairly plead that that hospital for the reception of phthisical patients was at all events as worthy of their support and contributions as, if not more worthy than, almost any other which could be mentioned in the neighbourhood.

The late Mr. James McKee, M.R.C.S. Eng., L.R.C.P. Irel.

I regret to report the death of Mr. McKee of Randalstown, county Antrim, one of the oldest medical practitioners in the north of Ireland, which took place on Jan. 16th.

Jan. 19th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

"The Accursed Knife."

THE phrase is Antonio Gallenga's, who loved his compatriots too well to spare the correcting rod. Cutting and wounding is the most frequent and also the most fatal of Italian crimes, causing, as the eminent criminal statistician, Baron Garofalo, demonstrated, "a homicide every two hours." It would be a curious and instructive inquiry, that of ascertaining how far offences are aggravated by the medium through which they take effect—drunkenness, for example, being a more brutal phenomenon when the drinker incurs it with ardent spirits and not with wine or beer. Similarly, personal violence is one thing when it takes the form of fisticuffs and quite another when it is inflicted with the knife. A people, not necessarily more depraved, may appear technically more "criminal" by giving vent to its passions or propensities, not in themselves worse, through agencies of deadlier power. Italy possesses an unhappy priority in lethal offences, and Northern exceeds Southern Europe in drunkenness, just because in the one case the knife is used instead of "nature's weapons" and in the other because raw whisky is the available beverage and not the juice of the grape. The Italian Senate last week, on the initiative of the Marchese Vitelleschi, had a full-dress debate on the prevalence, nay, the increase, of "reati di sangue" (crimes of blood) during the last decennium, and many were the causes, primary and secondary, adduced in explanation of the fact. The Marchese Vitelleschi saw much that was answerable for these crimes in the lack of sound education, even where it is given at all, deploring, for example, the total suppression of religious instruction in schools. Again, he thought the abolition of capital punishment directly favourable to homicide. To some of his arguments the Minister of Grace and Justice (Costa) replied not ineffectively. Admitting the prevalence of lethal crime, his Excellency showed that it was not universally diffused throughout the kingdom—that (as, indeed, THE LANCET put *en évidence* some weeks ago) the Southern provinces contribute to these crimes out of all proportion to their population. This would confirm the Marchese Vitelleschi in his impeachment of defective schooling as a cause, these provinces being far ahead of the north in the number of *analfabeti* (unlettered). On the other hand, his Excellency distinctly "scored" when he drew attention to the striking fact that in Italy alcoholic excess is not attended with increase of violence. The provinces of Italy where homicides are most frequent are, he proved, precisely those where the lower orders are exemplary for their sobriety and abstemiousness. His Excellency was less fortunate in rebutting a charge as to the apathy of the public in presence of such "reati di sangue." Indeed, the supineness of Italians—the absence of all "sense of citizenship"—runs through their whole attitude towards every detail of national life, from representative government downwards. But, again, his Excellency redressed the balance in his favour when he proved that the suppression of religious (as distinct from secular) education in schools had nothing to do with the increase of lethal crime. "Nel 1870," he said, "nel Lazio, ove pure vi era istruzione religiosa più che obbligatoria, vi erano molti più omicidi" (In 1870, in Latium, where there was also religious instruction more than compulsory, there were also many more homicides). But the abolition of capital punishments he did not at all succeed in justifying. Thirty years ago in the House of Commons the whole subject was threshed out thoroughly, one of the most powerful speeches in favour of such punishments being John Stuart Mill's, who, on the ground of humanity, advocated execution as preferable to the slow torture of lifelong imprisonment with, or still more without, hard labour. But the speech of the occasion was Sir George Bowyer's, who, in answer to the plea that capital punishment was not a deterrent, adduced the following fact. A Neapolitan wanted to kill his wife. The guillotine was still the penalty for murder in the kingdom of the Two Sicilies, so he took her to Tuscany, where that penalty had been abolished, and put her to death there. Yet, in spite of that historical debate on the subject—in spite of the fact that Switzerland, having abolished capital punishments, was compelled by sad experience to legalise them once more, the Italian Government (though not without numerous and authoritative dissentients) made the abolition of these punishments the law of the land; and we now find the Minister of Grace and Justice defending that "reform" in presence of "a homicide every two hours"! The truth is that Italy, in many aspects of her life, has not emerged from the Middle Ages; that hardness of living at once inspires crime and robs detention in prison of its terrors; that the administration of justice is so perfunctory that the people, knife in hand, settle their differences among themselves; that, in fact, D'Azeglio's watchword thirty-five years ago—"Now we have to make Italians—" has lost none of its significance; and that Italy's most dutiful sons are those who, like the mass of her medical men, act strenuously in the spirit of that watchword, beginning with the rising generation and so guiding its growth as to exclude the vicious, and give the healthy subjects such advantages of training and environment as can alone form the ground-work of a civilised and progressive State.

Jan. 16th.

BUDAPEST.

(FROM OUR OWN CORRESPONDENT.)

Syphilitic Sero-fibrinous Pericarditis.

SYPHILITIC changes in the muscle of the heart are not very uncommon, but cases of pericarditis from syphilis are of such rarity that Mracek, who had thoroughly investigated the literature of this question, could state: "Syphilis has hardly ever caused an exudative sero-fibrinous pericarditis." A communication of Professor A. Genersich in the columns of the *Orvosi Hetilap* describing a case of this kind is therefore of great interest. Professor Genersich, on examining the body of a man, aged thirty-two years, who had died from pericarditis, found various syphilitic lesions in different parts of the body, especially in the lung, the spleen, the liver, and the bones. The

pleura and the heart also exhibited gummatous growths of various sizes. The pericardium was found to be inflamed, its connective tissue being thickened, infiltrated, and full of round and fibroblast cells. The superficial layers of the pericardium showed a fibrinoid structure containing sparse endothelial cells and red blood corpuscles. The diagnosis of syphilis being established beyond doubt by the changes found post mortem in the various organs, Professor Genersich had no hesitation in attributing the signs of chronic inflammation found in the pericardium to the same disease.

Prolonged Anuria.

A highly interesting case was narrated by Professor J. Réczey at a recent meeting of the Budapest Hospital Association. A man, aged forty-five years, who had suffered from renal calculi for ten years, came to Professor Réczey's clinic with the statement that he had not passed urine during the last four days. On introducing a catheter the bladder was found to be empty. On percussion the area of the renal dulness was not found enlarged on either side. The patient being very stout palpation gave no satisfactory result. No operative interference was decided upon, the man feeling no discomfort whatever. Diuretics, such as Salvator water and dilute nitric acid, were freely administered and daily hot baths and injections of pilocarpine given with a view of preventing uræmia. The patient continued under observation at the clinic for ten days without any change taking place, but on the evening of the eleventh day he was suddenly seized with a violent desire to micturate, and four calculi, one of the size of a bean and three of the size of hemp seeds, came away without marked difficulty. During the following night he passed seven litres (= twelve pints) of urine. Professor Réczey pointed out that this case proved that obstruction of the ureter does not necessarily cause renal colic, and that obstruction even of both ureters may continue for some time without giving rise to urgent symptoms.

A Case of Tetanus treated with Antitoxin.

A student of the Budapest Veterinary College who had been bitten by an ape on the palm of his left hand was imprudent enough to dissect on the same day a horse which had died from tetanus, and on the following night was seized with pains in his left hand, but waited till next morning, when he went to Professor Réczey's clinic. The wound of the hand was at once enlarged, thoroughly cleansed with a solution of perchloride of mercury, and subsequently cauterised with caustic potash. He was then sent home, and although advised to present himself at the clinic next day did not do so, but stayed at home, where he was seized on the following night (Nov. 12th) with tetanic convulsions. A neighbouring practitioner who was called in ordered large doses of chloral-hydrate to be taken every two hours. On Nov. 13th the convulsions increased in frequency and intensity. The patient was conscious, his secretions and excretions were normal, he perspired freely, and his temperature was 42° C. (= 107·3° F.). He was now given a subcutaneous injection of pilocarpine, which arrested the convulsions for a few hours, but in the evening he was seized again every thirty minutes with convulsions lasting from a minute to a minute and a half. On Nov. 14th pilocarpine was again administered, giving relief for several hours. On Nov. 15th the pilocarpine ceased to be effective, the convulsion came on again twice every hour, and sometimes respiration stopped owing to the spasm of the respiratory muscles, so that artificial respiration had to be resorted to. It was consequently resolved to give the tetanus antitoxin a trial. The antitoxin was given in doses of 3 c.c. thrice daily on Nov. 15th, 16th, and 17th, and once on Nov. 18th. The patient's nights were quieter from the beginning of this treatment, and the last of the fits occurred during the night between Nov. 17th and 18th. He has been free from convulsions ever since and may be safely considered as recovered. His highest temperature was 43·2° C. (= 109·7° F.) on Nov. 17th, and the lowest was 35·2° C. (= 95·3° F.) on Nov. 20th. The special features of this case were: (1) The early development of the tetanus, the period of incubation lasting generally from eight to fourteen days; this rapid onset may be attributed to the obvious fact that the disease was in this case not due to bacillary infection, but rather to the absorption of toxins; (2) the absence of trismus and the absence of troubles connected with the secretory and excretory functions; and (3) the marked predominance of very violent clonic convulsions, the characteristic tonic contractions being but little marked.

Jan. 15th.

Obituary.

FREDERIC JOHN MOUAT, M.D., LL.D. EDIN., F.R.C.S. ENG.

BY the death of Dr. F. J. Mouat, which occurred at Durham-villas, Kensington, on Jan. 12th, the Indian Medical Service has lost one of the ablest and most distinguished of its older members. Anglo-Indian medical officers have made reputations for themselves in various lines of useful work. Dr. Mouat's principal claims to remembrance will probably be his zeal and success as an educational reformer and the improvements which he was the means of introducing into the prison system in India. Many of his personal characteristics specially qualified him for undertaking such arduous and responsible labours. His mental alertness and versatility, his talents for organisation, his power of making friends, and his knowledge of character all aided him in accomplishing an amount of work in various departments which will give him a permanent place in history among the administrative benefactors of our Indian possessions.

Dr. Mouat was born at Maidstone in 1816, studied medicine in London, Edinburgh, and Paris, and became a Member of the Royal College of Surgeons of England in 1838. In 1839 he graduated as M.D. at Edinburgh University and was appointed assistant surgeon to the Bengal Establishment in January, 1840. He arrived at Calcutta in June, 1840, and was shortly afterwards attached successively to the 21st Fusiliers (then at Fort William), to the 47th Bengal Native Infantry, and to the 1st Battalion of Artillery at Dum-Dum. Towards the end of 1840 he received the appointments of deputy apothecary and assistant opium examiner to the Government, appointments which afforded valuable opportunities to a young man having a taste for practical chemistry. During the year that he continued at this work he made investigations for the Liverpool Chamber of Commerce regarding some lichens which yield dye-stuffs and drew up a memorandum on Indian industrial products. The business capacity and technical knowledge which he then displayed induced Lord Auckland—at that time Governor-General—to appoint Dr. Mouat Professor of Chemistry and Materia Medica in the Bengal Medical College in 1841. With the duties of this chair he combined those of secretary, treasurer, and resident officer, having, in fact, general charge of the institution. Between 1841 and 1853 Dr. Mouat effected important reforms in the Medical College, especially in the introduction of an improved system of clinical instruction. He also obtained its recognition by the Royal College of Surgeons of England and the University of London, improved the finances of the hospital in connexion with it, formed a Bengali class, wrote an Atlas of Anatomy with descriptive letterpress in English and Hindustani, and translated the London Pharmacopœia into Hindustani for the use of the military class. He was also for two years chemical examiner to the Government. Dr. Mouat's chemical knowledge found an important practical application in connexion with the manufacture of percussion caps, field rockets, and other military explosives. While making these experiments he was attached to the Select Committee on Artillery at Dum-Dum, where, in conjunction with Colonel Edward Ludlow, he invented a waterproof varnish for protecting the detonating composition against atmospheric influences. The percussion caps invented by Dr. Mouat were the first that were made in India and were used in the China Expedition under Sir Hugh Gough. Dr. Mouat was also the first investigator of the chemical properties of gutta percha; before this substance was known in Europe he had published an account of it in the Journal of the Agricultural Society of Bengal. In April, 1843, Dr. Mouat was appointed secretary to the Council of Education of Bengal, a position which gave him the control of education in the Lower Provinces, and which he held for ten years, simultaneously with his work at the Medical College. In 1846 he brought forward a scheme for the establishment of universities in India. His proposals were adopted by the Council of Education and were approved by the Government of India, but were not sanctioned by the Honourable Court of Directors till 1854. Dr. Mouat was, therefore, the originator of universities in India, no one before him having succeeded in directing attention to the advantages which would result from such an enlargement

of the educational facilities of the country. In 1844 he was admitted to the Fellowship of the Royal College of Surgeons of England. In 1845 Dr. Mouat accepted the Professorship of Medical Jurisprudence in exchange for that of Chemistry; in 1849 he became Professor of Medicine and Clinical Medicine, with charge of the medical wards of the hospital, and in 1853 on the opening of the new hospital the designation of this last appointment was altered to that of Professor of Medicine and First Physician to the Medical College Hospital. In 1855 he acted as Presidency Surgeon for some months. In December, 1855, he was gazetted Inspector-General of Gaols in Bengal, and soon introduced remunerative forms of labour into the establishments under his control with such good effect that four of these prisons repaid the whole of their cost, and up to March, 1857, the prison manufactures yielded a net profit of Rs. 31,96 049, after payment of the whole cost of production. Another important feature in his scheme of prison reform was the employment of prisoners to some extent in the maintenance of order and discipline, such employment having a most salutary effect in encouraging the better nature of those who had not degenerated into habitual offenders. In November, 1857, during the Sepoy Mutiny, Dr. Mouat was sent to the Andaman Islands as president of a committee charged with the selection of a site for a convict settlement. The party had to encounter much hostility from the aborigines, and several of them were injured. Dr. Mouat was wounded in the mouth and had two ribs broken, but nevertheless continued his responsible duties as leader of the expedition, which succeeded in its objects and returned to Calcutta without loss. Both Lord Canning and the Home Government expressed much satisfaction with the manner in which the work of the expedition under Dr. Mouat was accomplished. A harbour discovered by the party on the West Coast of the Great Andamans, opposite to Port Blair, was named Port Mouat. Dr. Mouat was twice appointed to conduct inquiries into the subject of coolie emigration and on both occasions he received the thanks of the Government. In 1851 he founded the Bethune Society in Calcutta to promote a more intimate union between educated natives and Europeans. In 1854, when he was about to proceed to England on a year's furlough, he was presented by the graduates of the Calcutta Medical College with an address and a silver vase, and by the members of the Bethune Society with an address and a silver inkstand. In 1870, when he finally retired from the Indian service, he was presented by both the Hindoo and Mohammedan communities of Calcutta with addresses expressing their grateful appreciation of the benefits which he had been the means of conferring on them. On his return to England he was appointed one of the medical inspectors of the Local Government Board and discharged his duties in this new capacity with exemplary thoroughness until in 1887 failing health rendered it necessary for him to seek repose. Even then, however, his activity continued. His address as President of the Royal Statistical Society appeared in THE LANCET in November, 1890, and during the ensuing three years our columns contained long and important contributions from his pen on such varied subjects as the ethics of opium and alcohol and the organisation of medical relief in the metropolis. Dr. Mouat's contributions to the literature of medicine, philanthropy, and social progress include, in addition to the treatises already mentioned, "Prison Discipline and Statistics" (three papers), Journal of the Statistical Society of London; "Prison System of India," Transactions of the International Peniten. Congress; "Prison Labour," Journal of the Society of Arts; "Medical Statistics of Cholera and Syphilis" and "Notes on Medical Statistics" (Public Health Section of the Ninth International Statistical Congress), Transactions of the Epidemiological Society; "Statistics of Childbirth and Deaths therefrom in Workhouse Infirmaries from 1871-80," International Medical Congress; "History of the Statistical Society of London," 1885; "Origin and Progress of Universities in India," 1888; "Boarding-out of Orphans in England" and "International Prison Statistics," International Prisons Congress, 1890; and "Prison Ethics and Prison Labour," 1891. Dr. Mouat was also joint author with Sir Douglas Galton of "Hospital Construction and Management," 1883.

DONALD ALEXANDER FRASER, M.D. BRUX., M.R.C.S. ENG., L.S.A.

DR. D. A. FRASER died at his residence, Pomeroy House, Bridgetown, Totnes, on Jan. 11th, after a short illness. The deceased was the eldest son of Mr. P. Gordon Fraser, late colonial secretary for Tasmania. He was educated at King's School, Bruton, and received his medical education at St. Mary's Hospital, London, obtaining the M.R.C.S. Eng. and L.S.A. in 1830 and the M.D. of Brussels in 1836. Dr. Fraser went to Totnes ten years ago, being taken into partnership by Mr. J. C. Hains, J.P. The deceased was deputy coroner for the southern division of Devonshire and medical officer of health for the borough of Totnes. He also held the appointment of medical officer and public vaccinator for the No. 4 district of the Totnes Union. Dr. Fraser was extremely popular and held in the highest esteem both by the local members of the profession and by his fellow townsmen. He was forty-five years of age at the time of his death and leaves a widow and two young children, for whom much sympathy is felt.

JOHN WILFORD MARSH, M.R.C.S. ENG., L.S.A.

JOHN WILFORD MARSH, for many years connected with the Lincoln County Asylum, died on Jan. 14th, aged fifty-four years, at Bognor, Sussex. Since 1883 he had held the position of medical superintendent of Bracebridge Asylum, but about a year ago his health broke down and he retired to Bognor. The deceased gentleman was an old pupil of the London Hospital Medical School, where at one time he was house surgeon and clinical medical assistant. He was a member of the Medico-Psychological Association.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. T. Plücker, Professor of Special Surgery and Dermatology in Liége. For several months past, it seems, he was aware that he was the subject of a necessarily fatal disease and made various preparations for his death without making his family anxious or betraying his own cognisance of his state. Thus he told his students he should expedite his course of lectures, but that he should not probably be present at the examinations, and he declined various posts offered to him. In his will he particularly requested that those attending his funeral should keep their heads covered, knowing that the weather would probably be cold. He is much regretted by the local profession.—Dr. Thiry, formerly Professor of Surgical Pathology and Rector of the University of Brussels, at the age of eighty.—Dr. Wilhelm Theodor von Renz, Bath Physician at Wildbad. He had written a good deal on the history and therapeutics of the Wildbad springs, and had published a work on Trichinosis.—Dr. Michael of Hamburg, a well-known laryngologist.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Second Examination of the Board in the subjects indicated at a meeting of the Board of Examiners on Monday, Jan. 11th, 1897:—

Anatomy and Physiology.—Arthur Greene Brinton, Charles York Flewitt, James Christopher Oates, Oswald Erasmus Ward, and Edwin Edgar Montague Price of Mason College, Birmingham; David Morgan Davies and George Herbert Simpson of St. Mungo's College, Glasgow; Robert James Fyffe of Firth College, Sheffield; William Nichols Blatchford of University College, Bristol; Robert Walker of St. Bartholomew's Hospital; John Samuel Cousins of Guy's Hospital and Mr. Cooke's School of Anatomy and Physiology; Joseph Bernard Thompson of University College, London; Edmund Hudson of Owens College, Manchester, and St. Thomas's Hospital; and William Stuart Low of Royal College of Surgeons and the University, Edinburgh, and St. Thomas's Hospital.

Anatomy only.—Alexander Septimus Arkle, Cambridge University, St. Thomas's Hospital, and University College, Liverpool; Hill Musgrave Leathes, Cambridge University and St. Thomas's Hospital; Louis Charles Martin, Guy's Hospital and Mr. Cooke's School of Anatomy and Physiology; Emilio Frederico Crabtree, St. Bartholomew's Hospital; and Rustom Pestonjee, Ceylon Medical College and Mr. Cooke's School of Anatomy and Physiology.

Physiology only.—William Beck, Aberdeen and Edinburgh Universities, and John Alfred Mellish, St. George's Hospital.

Eighteen gentlemen were referred in both subjects, one in Anatomy only, and one in Physiology only.

Tuesday, Jan. 12th:

Anatomy and Physiology.—Percival Thomas Nicholls, Middlesex Hospital; Harry Norman Rex Child, Otago University, Dunedin, and Middlesex Hospital; Harold Burrows, Henry Warwick Illing-

John Warwick Illius, Walter Percy Dyer, and Thomas Warren Brown, St. Bartholomew's Hospital; Archibald Douglas Reid, King's College, London; George John Edward Pitman and Charlie Martin Row, University College, London; Thomas Gerald Fenton, St. Thomas's Hospital; Clement Arthur Douglas Bryan and William Murray Thomas, Guy's Hospital; John Richard Griffith, London Hospital; Arthur Herbert Foster and Arthur John Watson, St. Mary's Hospital; and Ridley Ewart Mounsey, St. George's Hospital.

Eighteen gentlemen were referred in both subjects.

Wednesday, Jan. 13th:

Anatomy and Physiology.—Charles Bernard Sells, Charles Edwards, John Brocas Chambers Brockwell, Guy's Hospital; Hugh Caleb Holden, Guy's and Westminster Hospital; Charles Wynn Wirgman, Nigel Frampton Stallard, and Percy Taylor Humphrey Stedman, University College, London; Charles Vaughan White, St. Thomas's Hospital; George Melville Smith, St. Thomas's Hospital and Mr. Cooke's School of Anatomy and Physiology; Harry Thwaites and Alfred Jones, London Hospital; Edward Arthur Sanders, King's College, London; and Archibald Malcolm Macintosh and William Richard Power Goodwin, St. Mary's Hospital.

Anatomy only.—John Micklethwait, Firth College, Sheffield, and Mr. Cooke's School of Anatomy and Physiology.

Physiology only.—Frederick Aylmer Hort, Cambridge University, Middlesex Hospital, and Mr. Cooke's School of Anatomy and Physiology; and William Morgan James, Cambridge University and St. Bartholomew's Hospital.

Twenty-five gentlemen were referred in both subjects, two in Anatomy only, and one in Physiology only.

Thursday, Jan. 14th:

Anatomy and Physiology.—Edwyn Gaved Andrew, George Shorland, Albert Edward Cawston, and Remus William John Radley, Guy's Hospital; Walter Edward Cooper, University College, London; Codanda Alpacha Nanjapa, Madras Medical College and University College, London; John O'Hea and George Joseph Alexis Leclezio, St. Bartholomew's Hospital; George Harrison Orton, Cambridge University and St. Bartholomew's Hospital; Edward Wemyss Browne and Cyril Alfred Rankin Nitch, St. Thomas's Hospital; Robert Augustus Greenwood Penny, St. George's Hospital; Charles Edward Etheridge, Middlesex Hospital; John Scarborough Dudding and Frederick James Purcell Daly, London Hospital; Meredith Sedgwick Doubble, Charing-cross Hospital; and Walter Edward Turner, St. Mary's Hospital.

Anatomy only.—Arthur West Walker, Mason College, Birmingham, James Augustus Rooth, St. George's Hospital.

Physiology only.—Thomas Arthur King, Cambridge University and St. Thomas's Hospital.

Sixteen gentlemen were referred in both subjects, two in Anatomy only, and one in Physiology only.

FOREIGN UNIVERSITY INTELLIGENCE.—*Catania:* Dr. Antonio Curci has been appointed Professor of Materia Medica and Experimental Pharmacology.—*Freiburg:* Dr. Kiliani, of Munich, has been appointed Professor of Chemistry, in succession to Professor Eugen Baumann.—*Geneva:* Dr. Johanès Martin has been appointed Professor of Psychiatry in succession to Professor Olivet, who has resigned.—*Giessen:* Dr. R. Sommer has been appointed Professor of Psychiatry.—*Heidelberg:* Dr. Max Jordan has been appointed Extraordinary Professor of Surgery. The university is about to lose the services of Dr. Von Beck, who was only recently appointed Extraordinary Professor, as he has been placed in charge of the Carlsruhe Hospital.—*Munich:* Dr. Karl Seitz has been appointed Extraordinary Professor of Children's Diseases.—*Naples:* Dr. Giacinto Vetere and Dr. Carlo Parascandolo have qualified as *privat-docenten* of Operative Medicine and Surgical Pathology respectively.—*Palermo:* Dr. Giovanni Dotto has qualified as *privat-docent* of Psychiatry.—*Tübingen:* Dr. Dennig has been appointed Extraordinary Professor of Internal Medicine.—*Würzburg:* Dr. A. Hoffa has been appointed Extraordinary Professor of Surgery.—*Vienna:* Dr. H. Peters has been appointed *docent* of Midwifery and Gynæcology.—*Zürich:* Dr. W. Felix has been appointed Extraordinary Professor of Anatomy.

MEDICAL FACULTY OF UNIVERSITY COLLEGE, LIVERPOOL.—The following table shows the number of medical and dental students attending the various classes at University College, Liverpool. Those attending at the Royal Infirmary who have not registered with the Dean this session are not included:—

Preliminary Scientific (Victoria University I.)	24	Conjoint Board, 2nd year... ...	7
Victoria University, 2nd year	16	,, ,, 3rd ,, ...	12
,, ,, 3rd ,,	18	,, ,, 4th ,, ...	6
,, ,, 4th ,,	9	,, ,, 5th ,, ...	6
,, ,, 5th ,,	15	,, ,, 6th ,, ...	4
,, ,, 6th ,,	5	,, ,, 7th ,, ...	1
Dentals, 1st year	15	Other universities and qualified men	27
,, 2nd ,, ...	7		189
,, 3rd ,, ...	5		
Conjoint Board, 1st year... ...	12		

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentleman having previously passed the necessary examinations, and having now conformed to the by-laws and regulations, has been admitted a Member of the College:—Llewellyn William Roberts, M.B., Ch.B. Melb., Melbourne University and King's College Hospital.

NEW HOSPITAL FOR BEDFORDSHIRE.—At a meeting of the governors of the Bedford General Infirmary on the 14th inst. it was decided to commence to build a new county hospital at a cost of about £33,000. Towards the sum required £27,000 are already in hand, including two donations each of £5000 from the Duke of Bedford and Mr. Whitbread.

FOOTBALL CASUALTIES.—During a match between Frome (Somerset) and Leighside Wanderers, on the 14th inst., a player sustained a fracture of his leg.—On the same day, in a match, St. Helens' Butchers against Theatricals, a player fractured his left humerus.—On the 16th inst., at Castletown, Isle of Man, during a match between King William's College Old Boys and Castletown, a Castletown forward fractured his leg, and another player sprained his ankle.

THE SLAUGHTER-HOUSE QUESTION.—The President of the Board of Agriculture will receive a joint deputation of the Church Society for the Promotion of Kindness to Animals and the Church Sanitary Association asking for further legislation respecting slaughter-houses on Feb. 25th. The Duke of Westminster will head the deputation. Copies of the memorial, which has already been signed by nearly 4000 persons, can be had on application to Mr. W. P. Gledhill, Church House, Westminster, S.W.

PORTSMOUTH MEDICAL UNION.—Mr. Gordon Sparrow, Mr. Emmett, Mr. McGregor, Dr. Sheahan, Mr. Norris, Mr. Malpas, Mr. J. E. P. Sparrow, and Mr. Gaston are each to be presented with an engraving of Mr. Luke Fildes's well-known picture, "The Doctor," as an acknowledgment by the profession of Portsmouth of the united stand they made with the assistance and advice of the Portsmouth Medical Union on behalf of the whole profession in the recent dispute with the Ancient Order of Rechabites. The presentation will be made by Dr. Ward Cousins at the rooms of the Medical Library on Tuesday next, Jan. 26th. A social and musical entertainment has been arranged to commence at 9 P.M.

SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—A quarterly court of the directors of this society was held on Jan. 13th at 11, Chandos-street. The chair was taken, in the unavoidable absence of the President, Sir James Paget, by Mr. Christopher Heath, Vice-president. One new member was elected and the deaths of one honorary and two other members were announced. It was resolved to distribute £1212 10*s.* among the fifty-one widows, thirteen orphans, and five recipients from the Copeland Fund. There were no fresh applications for relief. A present amounting to £368 had been given on Dec. 21st, 1896, among the widows and orphans on the books. The expenses of the quarter were £76.

BIRKENHEAD MEDICAL SOCIETY.—At a meeting of this society held on Jan. 15th, Dr. Sidney Marsden (President), being in the chair, Mr. H. Laird Pearson showed the Bone Handle of a Pen-holder four inches in length which he had extracted from the bladder of a middle-aged married woman thirty-six hours after its introduction. Under anæsthesia after dilating the urethra with Duke's uterine dilator the foreign body was after much manipulation extracted by means of a fine sequestrum forceps. There was no subsequent cystitis, and at the end of three days micturition, although painful, was well under control.—Mr. Stansfield, Dr. Brien, and Dr. Hughes made remarks and referred to cases of foreign body in the bladder.—Mr. C. Thurstan Holland of Liverpool gave an interesting demonstration of the uses of the Roentgen rays, first showing and describing the apparatus, enumerating several of the theories connected with the production of the rays, and then exhibiting a long series of lantern slides illustrating various physiological and pathological conditions of the skeleton as demonstrated by the rays.—A short discussion ensued, in which Dr. Harris, Mr. Stansfield and Mr. Wilkinson took part.

FREEMASONRY.—The York Lodge.—At the regular monthly meeting of the York Lodge No. 236, held at the Masonic Hall, Duncombe-place, York, on Monday, Jan. 18th, Bro. F. Sidney Gramshaw, M.D. St. And., was duly installed W.M. The banquet, held the same evening at the Royal Station Hotel, was largely attended, and an enjoyable evening was spent.

THE annual meeting of the Worcestershire Medical Society was held in the Library of the Worcester General Infirmary on Jan. 12th. Mr. T. Bates was elected president, and Dr. Stanley L. Haynes of Malvern, vice-president. Twenty-six new members were elected. A short paper was read by Dr. Swete on the History of the Worcestershire Medical Society. Cases were shown by Mr. Bates, Mr. Budd, Mr. Gostling, and Dr. Pollard.

A NOTABLE EXAMPLE.—A praiseworthy instance of consideration for the public service is reported from Southampton. Mr. H. H. Emanuel, to whom the Corporation owed £52 10s. as rent of premises which he owns, wrote desiring that the sum might be paid to the Royal South Hants Infirmary, the object being to qualify the medical officer of the county borough for the time being, as a life governor of that institution on behalf of the Corporation.

THE LARYNGOLOGICAL SOCIETY OF LONDON.—At the fifth annual meeting of this society, held on Jan. 13th at 20, Hanover-square, the following gentlemen were elected officers for the ensuing year:—President: Mr. Butlin. Vice-Presidents: Mr. Cresswell Baber, Dr. Bond, Dr. Bronner, Dr. Scanes Spicer, and Mr. Charters Symonds. Treasurer: Mr. Walsham. Librarian: Dr. Clifford Beale. Secretaries: Dr. St. Clair Thomson and Dr. Herbert Tilley. Council: Dr. Ball. Dr. McKenzie Johnston, Dr. Semon, Mr. Stewart, and Dr. Watson Williams.

LIVERPOOL MEDICAL INSTITUTION.—At the annual meeting, held on Jan. 14th, the following list of office-bearers, Members of Council, &c., was adopted:—President: Richard Caton, M.D., F.R.C.P. Vice-presidents: Robert Jones, F.R.C.S. Edin., *Charles H. Shears, M.R.C.S., K.A. Grossman, F.R.C.S. Edin., and *A. C. E Harris, M.D. Hon. Treasurer: *James Armstrong, M.D. Hon. General Secretary: R. S. Archer, M.D. Hon. Secretary to Ordinary Meetings: T. B. Grimsdale, M.B. Hon. Librarian: *T. R. Bradshaw, M.D. Council: J. H. Abram, M.D., Hugh E. Jones, M.R.C.S., C. J. MacAlister, M.D., R. Robertson, M.D., *A. Stookes, M.D., *A. Bernard, M.B., *C. T. Holland, L.R.C.P., *T. D. Leigh, M.R.C.S., *L. Morgan, M.D., *G. P. Newbolt, F.R.C.S., *Mr. W. Permewan, F.R.C.S., *R. J. Richardson, M.D. Pathological and Microscopical Committee: Robert Boyce, M.D., J. H. Abram, M.D., W. T. Thomas, F.R.C.S., Frank T. Paul, F.R.C.S., A. W. Campbell, M.D., F. C. Larkin, F.R.C.S., F. H. Barendt, M.D., *R. A. Bickersteth, F.R.C.S., *C. S Sherrington, F.R.S., and J. Wiglesworth, M.D. Those marked (*) did not hold the same office last year.

DIPHTHERIA IN LONDON.—The closing period of the past registration year consisted of five instead of the customary four weeks. But this circumstance does not render the facts incomparable, as the weekly averages can be considered The December period of five weeks shows a total of 1442 notified cases of diphtheria in the county of London, against 1160 in the November period of four weeks. In December, the weekly average of notifications was 288, or only 2 less than in November. In December four districts had an aggregate of 432 cases, as compared with five having 416 in the preceding month. All the sanitary districts were invaded by the disease in each of the periods, whilst in the later month the Port of London was also visited by the malady on ship board to the number of 6 cases. In December there were registered 257 deaths, yielding a weekly average of 51, as opposed to a weekly average in November of 55; and the per case mortality per cent. in the month just named of 19·0 gave place to one of 17·8 in December. There was, therefore, a like amount of disease in the two periods, with a mortality rate on amount of sickness in favour of the closing weeks of the year. Taking the whole year with its fifty-three weeks for purposes of registration, there were 14,224 notified cases, as against 11,426 in the fifty-two weeks of 1895, totals which yield for 1895 and 1896 weekly averages of 220 and 268 respectively. In Camberwell the 912 notifications in the earlier year gave place to 1447, and the 612 in Islington to 1152. The heaviest periods in 1896 were September and October and the lightest were April and January, and in the preceding year the periods were almost identical. Last week the deaths in London from the disease numbered 52, following on 71, but even so they were 17 in excess of the corrected decennial average for the first week of the period 1884–96. Poplar is credited with 6 of the deaths, Shoreditch with 5, and Islington, Hackney, and Bermondsey each with 4 deaths. Of the whole, 48 were those of persons aged from one to twenty years. The admissions to hospital in the week were 108, and last Saturday found 862 patients still under treatment. In the outer ring there were registered 6 deaths, in Kingston, Willesden, Hendon, Leyton (2), and Ilford respectively.

METROPOLITAN HOSPITAL SUNDAY FUND.—A meeting of the council of the Metropolitan Hospital Sunday Fund was held on Jan. 14th in the Venetian Parlour of the Mansion House, the Bishop of Stepney presiding in the absence of the Lord Mayor. Among those present were Archdeacon Sinclair, the Chief Rabbi, Canon Fleming, Lord Stamford, the Hon. Sydney Holland, Sir George Bruce, Sir Savile Crossley, Dr. Hare, Mr. Bloxam, F.R.C.S., Mr. Wakley, F.R.C.S., Mr. Willett, F.R.C.S., Rev. Dr. Marks, and Mr. H. C. Burdett. Letters of regret on account of inability to attend the meeting were received from Cardinal Vaughan, Canon Graham, the vicar of Islington, and others. The business to be transacted was the election of council, committees, and officers for 1897. The council for 1896 was re-elected, with the substitution of Lord Cathcart for Lord Knutsford, Mr. George Drummond for Alderman Sir Stuart Knill, Bart., and the Rev. Mr. Brock (Camden-town) for the Rev. J. Baillie. For the remaining vacancy, caused by the death of Mr. Joseph Fry, two candidates were proposed, and in the result Mr. A. S. Fripp was elected. Sir Stuart Knill and Mr. R. Grey were appointed as members of the committee of distribution to succeed Alderman Sir David Evans and Mr. H. Cosmo Bonsor respectively. Some conversation took place as to the expediency of proposing candidates whose consent was not formally signified. The honorary secretaries (Sir E. H. Currie and Mr. R. B. Martin, M.P.), the auditors, and the secretary (Mr. Custance) were re-elected, after which the proceedings terminated.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

Opening of the Session.

THE third session of the present Parliament was opened by Royal Commission on Tuesday, Jan. 19th, the opening proceedings being attended by a large gathering of the Members of the two Houses.

The Queen's Speech.

The Queen's Speech delivered at the opening of the session refers to various matters at home and abroad which have occurred since the prorogation of Parliament five months ago. With regard to the famine in India, it says that the Indian Government are making every effort to mitigate suffering and to lessen the calamity, and that the development of railways and irrigation works and the forethought given through a long series of years to the preparation of the most effective arrangements for alleviating distress caused by famine make their task more hopeful than in previous visitations. Plague, the Speech goes on to say, has also made its appearance in the seaport towns of Bombay and Karachi, and, notwithstanding the precautions adopted by the local authorities, shows no signs of decrease. Directions, however, have been given to the Government to take the most stringent measures at their disposal for the eradication of the pestilence. Among the legislative proposals mentioned in the Speech are Bills to improve the arrangements for water-supply in London and to establish reformatories for inebriates.

Public Health Law in Scotland.

The Government has arranged to introduce in the House of Commons the Bill for the Consolidation of the Law as to Public Health in Scotland, which last session passed through the House of Lords after being considered by a Select Committee.

The Vaccination Question.

There is no reference to this question in the Queen's Speech, but it is understood that the Government are considering it and will come to a decision as to the legislation to be proposed when it has had an opportunity of examining Dr. Thorne Thorne's report as to the state of things in the continental countries he has just visited.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

ANNINGSON, B., M.D. Cantab., M.R.C.S., has been re-appointed Medical Officer of Health by the Ashwell Rural District Council.

BAILEY, T. R., M.D., C.M. Edin., has been appointed Medical Officer for the No. 1 Bilston Sanitary District.

BARNETT, F. S., L.F.P.S. Glasg., M.R.C.S., has been appointed District Medical Officer for the Lewisham Union.

BROCK, JOHN, L.R.C.P. Edin., M.R.C.S., has been appointed House Surgeon to the Beckett Hospital and Dispensary, Barnsley, vice J. Currie, resigned.

BRUNSFIELD, T. N., M.D. St. And., M.R.C.S., has been appointed an Honorary Consulting Physician to the Budleigh Salterton Cottage Hospital.

EDDOWES, ALFRED, M.D., L.R.C.P. Edin., has been appointed an Honorary Assistant to St. John's Hospital for Diseases of the Skin, London.

EVANS T. G. C., L.R.C.P. Edin., M.R.C.S., has been appointed a Medical Officer to the Budleigh Salterton Cottage Hospital.

FARRANT, M., jun., L.R.C.P. Lond., M.R.C.S., has been appointed a Medical Officer by the St. Thomas Guardians and the Rural District Council, Exeter.

GIBSON, E. ARTHUR, M.B., C.M. Glasg., L.M. Rotunda, has been appointed Out-door Physician to the Glasgow Maternity Hospital, vice Professor John Edgar.

GEMPSON, F. C., M.B. Camb., has been appointed Senior Demonstrator of Anatomy to the University of Cambridge.

KITCHEN, J. F., M.D. Edin., C.M., has been appointed Medical Superintendent to the Bradford Fever Hospital, vice A. E. Foster.

LAVER, HENRY, M.R.C.S. Eng., L.S.A. Lond., J.P., F.S.A., has been appointed Consulting Surgeon to the Essex and Colchester Hospital.

LAVER, PHILIP G., M.R.C.S. Eng., L.R.C.P. Lond., L.S.A., has been appointed an Assistant Surgeon to the Essex and Colchester Hospital.

LOGAN, R. R. W., M.R.C.S., has been re-appointed Medical Officer of Health by the Ashby Wolds Urban District Council.

MACGREGOR, J., L.R.C.P., L.R.C.S. Edin., M.R.C.S., has been appointed Honorary Physician to the Newspaper Press Fund, vice Sir B. W. Richardson, deceased.

MACKAY, JOHN C., M.D. St. And., L.R.C.P. & S. Edin., has been re-appointed Medical Officer of Health for the St. Columb Major Rural Sanitary District.

MOORE, W., M.B., C.M. Glasg., has been appointed Medical Officer by the Ayr Parish Council.

NEALON, J. A., M.D., M.Ch. Irel., has been appointed Medical Officer to the Linton Sanitary District and the Workhouse, vice Wm. Taynton, resigned.

READ, CHARLES S., M.R.C.S., L.R.C.P., has been appointed Resident Medical Officer to the North London Hospital for Consumption and Diseases of the Chest, Mount Vernon, Hampstead, N.W.

RICHARDSON, T. W., M.R.C.S., has been re-appointed Medical Officer of Health by the Erpingham Rural District Council.

SAUNDERS, JAMES F., M.R.C.S., has been appointed a District Medical Officer for the Lewisham Union.

SAVILL, THOMAS D., M.D. Lond., D.P.H. Camb., M.R.C.P. Lond., has been appointed an Honorary Assistant Physician to St. John's Hospital for Diseases of the Skin, London, vice Dr. Barrett, resigned.

SCOTT, E. W. KERR, M.B., C.M. Edin., has been appointed Assistant House Surgeon to the District Hospital, West Bromwich.

SEMPLE, H. F., L.R.C.P. Lond., M.R.C.S., has been appointed a Medical Officer to the Budleigh Salterton Cottage Hospital.

SLADER, GEORGE W. B., L.R.C.S. & L.M. Irel., L.S.A. Lond., has been appointed Medical Officer of Health for the Gainsborough Rural Sanitary District, vice H. Wright, resigned.

SMITH, E. B., M.D. Camb., has been appointed Senior Demonstrator of Anatomy to the University of Cambridge, vice W. S. Melsome, resigned.

STEVENSON, J. F., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Assistant Medical Officer for the Glasgow Poorhouse by the City Parish Council.

WALKER, ROBT., M.D. St. And., M.R.C.S., has been appointed an Honorary Consulting Physician to the Budleigh Salterton Cottage Hospital.

WATKINS, D. J. G., M.B., B.C. Camb., L.R.C.P. Lond., M.R.C.S., has been appointed a Public Vaccinator by the Lincoln Board of Guardians.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's inn-road, W.C.—House Surgeon.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Pathologist.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Clinical Assistant to the Out-Patient Physicians and Clinical Clerks in the Wards.

LIVERPOOL DISPENSARIES.—Assistant Surgeon, unmarried. Salary £80, to be increased to £90 after the first year's services, with apartments, board, and attendance. Applications to the Secretary, 34, Moorfields, Liverpool.

LONDON COUNTY ASYLUM, Claybury, Woodford-bridge, Essex.—Assistant Medical Officer, unmarried. Salary £120 per annum, rising £5 a year to £150, with board, furnished apartments, and washing. Applications to the Clerk of the Asylums Committee, Office, 21, Whitehall-place, S.W.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.—Assistant Resident Medical Officer for six months. Board, washing, and residence in the hospital provided.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich-road, S.E.—Resident Medical Officer for six months. Salary at the rate of £30 per annum, with board, attendance, and washing.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill, Stoke-upon-Trent.—Assistant House Surgeon, for six months. Board, apartments, and washing provided.

POPLAR UNION.—Assistant Medical Officer and Dispenser at the Workhouse, High-street, Poplar. Salary £100 per annum, with furnished apartments and rations in the Workhouse. Applications to the Clerk, Guardians' Offices, Upper North-street, Poplar, E.

ROYAL ORTHOPEDIC HOSPITAL, 297, Oxford-street, London.—House Surgeon and Anæsthetist, married. Salary, £100 per annum, with partial board and washing.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Physician.

SUFFOLK COUNTY LUNATIC ASYLUM.—Medical Superintendent at Melton, near Woodbridge. Salary £800 a year, with furnished house (excluding plate and linen), including all rates and taxes in respect of same, fuel, light, garden produce, and laundry. Applications to the Clerk, County Hall, Ipswich.

SUNDERLAND BOROUGH ASYLUM, Ryhope, Sunderland.—Resident Clinical Clerk for six months. Board and lodging provided, with a nominal salary.

Births, Marriages, and Deaths.

BIRTHS.

ANDREW.—On the 17th inst., at Hethersett, Hendon, N.W., the wife of F. W. Andrew, M.R.C.S., of a son, prematurely.

ANDREWS.—On Jan 17th, at R. N. Hospital, Haslar, the wife of Surgeon O. W. Andrews, Royal Navy, of St. Briavel's, Gloucestershire, of a son.

ASHBY.—On Jan. 19th, at North View, Castleford, Yorks, the wife of John Ashby, M.R.C.S., of a son.

DREW.—On Jan. 13th, at Water Hall, Oxford, the wife of Arthur John Drew, F.R.C.S., of a son.

GRAY.—On Jan. 16th, at Wadham Lodge, Ealing, the wife of John Alfred Gray, M.B., of a son.

GRINLING.—On Jan. 13th, at Coundon, Bishop Auckland, the wife of Fred. N. Grinling, M.R.C.S., L.R.C.P., of a son.

KENNINGTON.—On Jan 18th, at Borden-Park, Tonbridge, the wife of Edgar Kennington, M.R.C.S., Wisbech, of a daughter.

LESLIE.—On Jan. 16th, at Bexley-heath, Kent, the wife of J. Leith Leslie, M.A., M.D., of a daughter.

ROBERTSON.—On the 19th inst., at St. Andrews, Ventnor, I.W., the wife of Robert Robertson, M.D., of a son

SUMMERHAYES.—On Dec. 27th, at Dera Ghazi Khan, India, the wife of J. O. Summerhayes, M.R.C.S., L.R.C.P., of a daughter.

MARRIAGES.

FORBES—ROBINSON.—On Jan. 12th, at St. Luke's, Matfield, Kent, Norman Hay Forbes, F.R.C.S. Edin., of Montpelier Lodge, Tunbridge Wells, to Ellen, younger daughter of the late Jason Wilshin, Esq., of Hayes, Middlesex.

GRIFFITHS—HUGHES.—On Jan. 16th, at St. Mark's, Surbiton, Hugh St. D. Griffiths, Surgeon R.N., to Ethel Marian, eldest daughter of Arthur S. Hughes, Esq., of the Rowans, Surbiton.

LITTLE—DE POLLALION.—On the 29th ult., in Paris, Arthur Little, M.B. Lond., M.R.C.S. Eng., to Ara, Marquise de Pollalion (nee Stone), of New York.

MACAULEY—JOHNSON.—On Jan. 14th, at the Chapel Royal, Kew, W. G. Ridgeway Macauley, L.R.C.P. Lond., M.R.C.S., L.S.A., of King's Lynn, to Helen Augusta, eldest daughter of the late C. W. Johnson, Esq., of Norwich.

DEATHS.

BALLARD.—On Jan. 19th, at Ravenscroft-park, High Barnet, Edward Ballard, M.D., F.R.C.P., F.R.S., aged 76.

BLAKER.—On Jan. 16th, at Calcutta, Edward Spencer Blaker, M.B., son of the late Edward Blaker of East-hill, Portslade, Sussex, aged 35.

BOULTON.—On Jan. 17th, at High Gate House, Beverley, William Whytehead Boulton, J.P., M.R.C.S., aged 63 years.

BUTT.—On Jan. 13th, at Brading, Isle of Wight, Dr. W. F. Butt, late of Park-street, Grosvenor-square, London, in his 63rd year.

COX.—On Jan. 12th, at Sutton, Surrey, W. A. Cox, M.R.C.S., aged 54.

LAYNG.—On Dec. 12th, 1896, at Swatow, China, Henry Douglas Crichton Layng, eldest son of Henry Layng, M.R.C.S., L.R.C.P., from the effects of a fall, aged 6 years 1 month.

MARSH.—On the 14th inst., at Pagnor, Sussex, after a lingering illness, John Wilford Marsh, M.R.C.S., L.S.A., Superintendent of the Bracebridge Asylum, Lincoln, aged 54.

SAVAGE.—On Jan. 16th, at Avonmore-road, West Kensington, James Savage, L.R.C.P., M.R.C.S.

WHITE.—On Jan. 11th, at Springfield, Wigan, James White, M.R.C.S., J.P., aged 73 years.

WILSON.—On Jan. 15th, at his residence, Philbeach-gardens, South Kensington, Thomas Watkins Wilson, M.D., Surgeon-Major, Bengal Army, retired, in his 80th year.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (25th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M., Ophthalmic 1.15 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.).

TUESDAY (26th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (2 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY (27th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.).

THURSDAY (28th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.)

FRIDAY (29th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M., Ophthalmic 10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.).

SATURDAY (30th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY (25th).—MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. H. Cripps: Three Cases of Intestinal Anastomosis, two of them involving Double Resection.—Mr. S. Bishop: New Operation for Vesico-Vaginal Fistula.

TUESDAY (26th).—ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Dr. Lauder Brunton and Mr. A. A. Bowlby: A Case of Perforating Typhoid Ulcer treated by Operation and Suture and resulting in Recovery.—Dr. W. P. Herringham and Mr. A. A. Bowlby: Typhoid Fever Convalescence, Symptoms of Perforation, Laparotomy, no lesion found, Recovery.—Mr. F. Hawkins: Perforation of the Gall-bladder in Typhoid Fever.

WEDNESDAY (27th).—DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND (20, Hanover-square, W.)—5 P.M. Dr. Pye Smith: Varicella Bullosa.—Dr. Stowers: The Antecedent of, and Sequel to, a Case of Paget's Disease of the Nipple.—Dr. Abraham: (1) Extensive Epithelioma of Abdominal Wall; (2) Lichen Scrofulosorum (?).—Mr. Bidwell: Epithelioma of Leg. Cases by the President and others.

HUNTERIAN SOCIETY (London Institution, Finsbury-circus).—8.30 P.M. Mr. A. H. Tubby: Sprains and their Treatment.—Mr. Openshaw: Treatment of Pelvic Cellulitis.—Dr. Levy: Drawings from a Case of Pneumothorax.

THURSDAY (28th).—OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM (11, Chandos-st., Cavendish-sq., W.).—8 P.M. Card Specimens by Mr. Macnaughton-Jones, Mr. W. Dodd, and others. 8.30 P.M. Papers:—Dr. R. L. Knaggs: A Case of Spontaneous Recovery of a Retinal Detachment.—Dr. A. Robertson: Note on the Further History of a reported Case of Filaria Loa.—Mr. A. Lawson: Cystic Tumour of the Orbit.—Dr. C. E. Shaw: Perforating Wound of the Eyeball followed by Optic Neuritis.

FRIDAY (29th).—BRITISH LARYNGOLOGICAL, RHINOLOGICAL AND OTOLOGICAL ASSOCIATION (Medical Society's Rooms, 11, Chandos-street.)—5 P.M. Cases by Mr. M. Collier, Mr. F. Marsh, Mr. Lennox Browne, Mr. W. Wingrave, and Dr. Sandford.—4.45 P.M. Adjourned Discussion on Dr. H. Campbell's paper, Breathing in Singers.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

TUESDAY (26th).—CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL.—4 P.M. Dr. D. Grant: The Details of Aural Therapeutics (Manipulations, Minor Operations, &c.).

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3.30 P.M. Dr. Ormerod: Lecture.

WEST-END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM (73, Welbeck-street).—Dr. H. Campbell: On Cases of Hemeplagia.

WEDNESDAY (27th).—WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.)—5 P.M. Dr. S. Taylor: Urine Testing.

THURSDAY (28th).—HOSPITAL FOR CONSUMPTION, &c., (Brompton).—4 P.M. Dr. Barlow: Demonstration.

FRIDAY (29th).—CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL.—4 P.M. Mr. Lennox Browne: Tuberculosis.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3.30 P.M. Dr. Tooth: Anatomy of Cranial Nerves.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Jan. 21st, 1897.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb.	Solar Radia in Vacuo	Maximum Temp Shade	Min Temp	Rainfall.	Remarks at 8.30 A.M.
Jan. 15	30·10	N.E.	36	35	53	42	35	...	Overcast
,, 16	29·95	N.E.	35	34	40	37	34	0·14	Overcast
,, 17	30·03	N.	35	34	44	37	33	...	Cloudy
,, 18	30·09	S.W.	38	Fzn.	39	38	27	...	Foggy
,, 19	30·07	N.	36	35	43	40	28	...	Overcast
,, 20	30·11	E.	36	35	37	37	35	...	Raining
,, 21	29·98	S.E.	33	Fzn.	37	36	31	...	Overcast

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND, WHEN ACCOMPANIED BY BLOCKS, IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index for the second volume of 1896 was given in the issue of Dec. 26th last. The practice of supplying loose copies has been discontinued, the Index having been placed in the centre of the journal, whence it can easily be detached, and placed either at the beginning or at the end of the volume.

VOLUMES AND CASES.

VOLUMES for the second half of the year 1896 are now ready. Bound in cloth, gilt lettered, price 18*s.*, carriage extra.

Cases for binding the half-year's numbers are also ready. Cloth, gilt lettered, price 2*s.*, by post 2*s.* 3*d.* (Local bookbinders will charge about 1*s.* for binding the numbers in these cases.)

To be obtained on application to the Manager, accompanied by remittance.

Young Practitioner will not be well advised to attempt to take proceedings. There can be no doubt that from his statement of the case he has a legal claim, but the damage he has suffered is a small one, and to get the reputation of being a man given to take offence early in his career will not stand him in good stead.

THE RUSH MEMORIAL.

A MOVEMENT is on foot in America to collect funds in order to erect a fitting monument to the memory of Benjamin Rush in Washington. The organisers of this appeal appear to a certain extent to be roused to their present efforts to do honour to Rush by the remarkable success of the homœopaths of America in collecting the sum of $75,000 towards erecting a monument to Hahnemann, and it is rightly contended that it will be to the shame of the regular practitioners of the States if they, outnumbering the entire body of homœopaths by more than 100,000, should allow their gifted and patriotic countryman to be commemorated by an insignificant bust or statue. Rush has peculiar claims on his countrymen; he has claims to their admiration and respect as a great physician, but his memory should be also venerated and loved as a distinguished patriot. As a physician Rush was one of the most noted men of his time; he was a voluminous writer in many branches of literature—of his purely professional writings Medical Enquiries and Observations are the best known—and he was perhaps the first authority on the "epidemic of fevers" of his day. But as a patriot he appeals to all classes and should live in the hearts of his countrymen for ever. He was a great friend of Franklin and was one of the signers of the Declaration of Independence. We believe that the Americans will not forget his services, but will heartily subscribe a sum sufficient to do ample honour to his memory.

THE ORGANISATION OF PROVIDENT DISPENSARIES BY THE PROFESSION.

To the Editors of THE LANCET.

SIRS,—The medical practitioners in towns where friendly societies have recently started institutes rather than adopt a wage or class limit have been strongly advised to organise provident dispensaries in opposition; but there are weighty objections to such a plan, two of which I venture to point out. First, it would be practically impossible for the local practitioners to exclude their supporters in the recent club battles. Amongst these supporters would be found those who have had, and will have, most illnesses; the club members who are never ill and do not know the old surgeon, being the friends of the money-saving institute. The consequence of this would be that the institute would be eased of the bulk of its responsibility by the provident dispensary. Secondly, the provident dispensary would have to be "pushed" to make it successful, with the result of an increase of cheap "contract work" in the town, and a corresponding diminution of regular private practice.

What is obviously wanted is a medical club which will attract young men of the working class, their wants being, firstly, medical attendance at a cheap rate, say 1*d.* a week; secondly, a sick-pay of from 10*s.* to 12*s.* a week during illness for a weekly subscription of about 5*d.*; thirdly, security that the system offering these advantages will last their lifetime or requirements; and fourthly, that a member changing his residence to another town shall have a reasonably good chance of finding a branch of his club, through which he could continue to reap the same advantages.

These are the main attractions offered by Oddfellows and Foresters, and as these societies pay it seems possible that the medical practitioners of the whole country could, either by themselves or in connexion with an insurance society, organise such a club, with the great extra advantage of giving each man his choice of medical attendant. As a member of a local sub-committee appointed to consider the advisability of starting a provident dispensary, I am sure that advice or help in any form on this point would be very welcome from you or any of your readers. Personally, I am convinced that this is the only method of successfully meeting the undisguised antagonism of the old friendly societies to the profession.

I am, Sirs, yours faithfully,

Jan. 15th, 1897. BETA.

METRICAL MEDICINE.

THE first number of the *Guyoscope* has reached us. Our new contemporary does not put itself into competition with the *Guy's Hospital Gazette*, but desires to supplement that record of serious work and effort by chronicling the ephemeral humours of the hospital. The editor has happened on a clever young artist in "Little Billee," and some of the reading is good. We extract the following stanzas concerning the feeding of babies:—

CANTO VI.

"Mixed milk is risky, for on it result you can't rely,
One cow, a well-fed healthy cow, should yield the whole supply;
Dilute with barley water, take equal parts at first,
And add a little sugar, don't let the baby thirst;
And as it thrives, and older grows, in manner as it oughter,
Increase the milk and sugar, and reduce the barley water.

CANTO IX.

"In giving meat, or, better still, meat juice, or broth, or tea,
Don't over-feed, one meal a day is wiser far than three;
At eighteen months the child may have a little solid meat,
Wine, spirits, beer, cheese, pastry, pork, the baby should not eat;
The swallowing of unchewed food must cause you constant fear,
Full very many British babes have died of diarrhœa."

A MEDICAL ENCYCLOPÆDIST.

AMONG the noteworthy *savants* and men of letters who succumbed during 1896 there were few, probably, whose attainments were more varied than those of Dr. Ernest Faligan, who was a native of Anjou, but ended his days at Ostend. Bachelor of Laws, Doctor of Philosophy, and Doctor of Medicine—possessing, in fact, but one degree, or rather licence, less than the distinguished *savant* Aiglave—the deceased encyclopædist was likewise an ardent student of history, the classics, and modern languages. His thesis for the degree of Doctor of Philosophy was divided into two parts: the first, written in French, bore the somewhat ambitious title, "La légende de Faust chez tous les peuples et dans tous les siècles"; while the second, which was in Latin, was simply superscribed "Marlowe." Both these dissertations were sustained by the author at the age of fifty-five years. Dr. Faligan was also responsible for sundry romances, of which one called "The Corpse of the White House" was published in *Le Soleil*, as well as for a vast number of press articles on history, philosophy, and finance. He had but one defect, says the writer of an obituary notice in a Parisian medical journal—he was mad! An example of the pernicious effects of over-study and a warning to all geniuses with yearnings after encyclopædic fame.

THE SWALLOWING OF LEAD PELLETS.

To the Editors of THE LANCET.

SIRS,—In conversation the other day with a patient who was formerly in business as a gunsmith he told me a fact which may explain some obscure cases of saturnine poisoning. He said that he had at least a score of regular customers who were in the habit of purchasing half pounds of shot. On asking why they wanted it the answer was that it was for the purpose of keeping the lights down when they came into the throat. Some of them bought the largest shot made in the towers, while others thought that distributing the weight by taking three or four pellets was more effectual. Apparently the time occupied in the consumption of this quantity varied from one to three months. Most of them were women, who all declared that swallowing these pellets did them a great deal of good.

I am, Sirs, yours faithfully,

Burton-on-Trent, Jan. 18th, 1897. PHILIP B. MASON.

THE DEGRADATION OF THE PROFESSION.

"Is there nothing that can be done to prevent such a great lowering of our grand profession?" writes a correspondent, who encloses the following handbill:—

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8. Cod Liver Oil.

REHABILITATION BY SHOCK.

CASES are on record of the instantaneous restitution of lost power, chiefly functional, or of recovery from maladies under the influence of sudden and strongly determined emotion; but we doubt if the recent annals of medicine offer a more striking illustration of the phenomenon than that just reported to us, on professional authority, from Italian Switzerland. At Osogna, in the Canton Ticino, an Italian, Luigi Dellosta by name, aged forty-one years, employed in the famous granite quarries of Jemetti and Caretti, had the misfortune five years ago to fall ill of a grave disease from which he emerged with total loss of speech and hearing—a perfect example of the deaf-mute. The other day business took him to the Ticinese capital, Bellinzona, and on his return in the evening he elected to go on foot to Castione, there to catch the train to Osogna. When on the road just where the bridge crosses the Moesa he saw a horse bearing down on him at a wild gallop. He had barely time, with a desperate leap and a cry of terror, to save himself from being knocked down, and a minute afterwards began to breathe freely. The shock due to the approaching danger and his effort to evade it saved him in more senses than one. He got back his speech and hearing, not, we hope, to lose them again.

THE PLAGUE AND NAPOLEON BONAPARTE'S PREVENTIVE MEASURES.

"IT is interesting," says the *Pioneer Mail*, "to have a decided opinion on the much-vexed question of the contagiousness of the bubonic plague from so acute an observer as the Great Napoleon. His view is given in a curious little book published in 1816 by a Dr. Warden, the surgeon of H.M.S. *Northumberland*, which had conveyed the illustrious exile to St. Helena. It will be remembered that plague of a virulent type broke out amongst the French troops engaged in besieging St. Jean d'Acre in 1799, and that General Bonaparte, as the future Emperor then was called, showed an indefatigable zeal in visiting and consoling the sick. He told Dr. Warden one day that he was convinced that the plague could be communicated only through the organs of respiration; and on the medico saying that he had always understood the disease to be a contagious one Napoleon said, 'No; I visited the hospitals constantly and touched the bodies of the sick in order to give confidence to the attendants, being convinced that the disease can be contracted only through the lungs. At the same time I always took the precaution of visiting the hospitals after a meal and a few glasses of wine and of placing myself on the side of the infected person from which the wind was blowing.'" Our contemporary concludes by endorsing to some extent the great soldier's view. This we cannot do, but we can admire the energy and courage of the man in visiting the sick and trying to find out what might do good in the future.

Primary Exam.—Our Students' Number contains a list of the best books to read upon anatomy and physiology. Quain and Foster are indispensable to most students, and they can be supplemented in different directions if necessary.

"FAME OR ILL-FAME?"

To the Editors of THE LANCET.

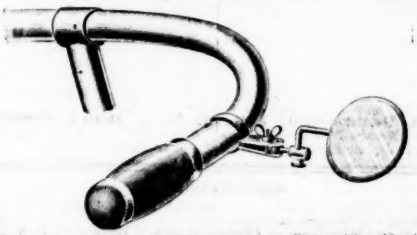
SIRS,—Yesterday morning I woke to find myself on the point of becoming famous. It happened thus: The post brought me a flattering invitation from a well-known firm of photographers to sit for my portrait (free, gratis, and for nothing) that it might be added to a list of members of the medical profession. As I am on what is commonly called the sunny side of forty, and my career in medicine so far has not been noted for any achievement unusually good or bad, I was at a loss to know why my face should appear among those already to be found in the Gallery of the Immortals. Being one of those who think that the orchestra of modern London life is too noisy in the brass I blushingly declined the proffered honour. Who will now deny that we live in glorious times?

I am, Sirs, your obedient servant,

Jan. 13th, 1897. WEST-END.

THE "ARGUS" RETROSCOPE.

THIS ingenious device, due to the inventive talent of Surgeon-Captain Cockerill, consists of a diminishing mirror framed and supported in such a way as to be readily attached to the handle of a bicycle, so that the rider by merely looking into the mirror can, without turning his



head, see whatever may be following him. This will evidently be a great convenience and advantage to bicyclists, and perhaps in even a more marked degree to boating men. The irksomeness of constantly looking ahead will be acknowledged by most scullers, and yet it is just for them that vigilance is necessary on account of the length and instability of an outrigger. The makers of the retroscope are Messrs. R. Field and Co., 142, Suffolk-street, Birmingham.

A Suffering Schoolmaster.—That children's parties may play their part in the dissemination of disease we do not doubt, but to put any embargo upon them of the sort our correspondent suggests would be wrong.

CAKES UNDER THE X RAYS.

THE *Pall Mall Gazette* says:—"A novel use of x rays has transpired in Sunderland. A lady last week, while baking some cakes, lost her ring in the paste, but did not discover the loss until the cakes were out of the oven. Afraid of choking some member of her family she struck on the happy expedient of taking the cakes to a chemist and photographer, who placed them under the x rays, with the result that the ring was immediately located."

DEATH OF A DUBLIN CLERGYMAN BY POISONING.

ON Nov. 21st, 1896, our Dublin correspondent gave an account of the death of a clergyman in that city from accidental poisoning with "Wallace's Specific No. 1," the verdict returned by the jury at the inquest being as follows: "We find that the said Rev. Wm. J. Warren Boyde, LL.B., died on the 11th inst. at 60, Amiens-street, and that the cause of his death was cardiac syncope, produced by a poisonous dose of some preparation of aconite which he had taken about two and a half hours previously by misadventure from a bottle given to him by a friend, Mr. McGuinness, and procured for money by the latter from the address on the said bottle—viz., 4, Albany-terrace, London, N.W.—and bearing the name of 'Wallace's Specific No. 1.' We most strongly condemn the selling of a poison so deadly without being properly labeled and without the purchaser being properly cautioned as to its nature. We also desire to express the hope that the authorities may deal as stringently as the law permits with the vendor of the said poison." We have now received a copy of the *Herald of Health*, published during the current month, and containing the answer of the vendor of the nostrum. The answer is to the effect that the verdict was wrong, that "Mr. Wallace's aconite is comparatively innoxious," and that the death of the unfortunate clergyman was in all probability due to the emetics which were administered. The same paper also contains the remarkable statements—(1) that "Mr. Wallace in years past had both the time and the money to enable him to qualify if he chose, but his contempt for the secret oath and the unscientific position of the medical colleges was such that though constantly pressed to do so he persistently refused," and (2) that the fact of his not being qualified makes him more careful.

AN AMERICAN METHOD OF DEALING WITH MEDICAL AID ASSOCIATIONS.

THE following is extracted from the *New York Medical Record* of Dec. 19th, 1896, and is headed

"NO MORE LODGE WORK.

"The following significant resolutions have been adopted and signed by the physicians of Santa Clara County, Cal.:

"'*Whereas*, Rendering professional services at a stipulated fee per capita per annum is derogatory to the dignity of the medical profession, we, the undersigned physicians and surgeons of Santa Clara County, Cal., enter into the following agreement:

"'First, we mutually, jointly, and individually pledge our word of honour not to enter into any contract or agreement, or renew any existing contract or agreement, either written, verbal, or implied, to render medical or surgical services to any lodge, society, association, or organisation.

"'Second, we will not render medical or surgical services to the members of the above-mentioned bodies for less compensation than we charge the general public for similar services.

"'Third, this agreement shall not be construed to affect existing contracts between physicians and surgeons and the above-mentioned bodies.

"'Fourth, these pledges shall take effect and be in force for a term of three years from and after May 22, 1896.

"'This agreement shall not apply to hospitals and purely public charitable institutions.'"

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

During the week marked copies of the following newspapers have been received:—*Hastings News, Halifax Guardian, Goole Times, Tyrone Constitution, Scottish Highlander, Forres Gazette, Falkirk Herald, Bradford Observer, Manchester Guardian, Scotsman, Newcastle Chronicle, Clifton Chronicle, Brixton Free Press, Hinckley Times, Faringdon Advertiser, Leytonstone Independent, Essex County Standard, Horsham Times, Western Morning News, Worcester Herald, Kent Messenger, Birmingham Mail, Eastbourne Chronicle, Craven Herald, Eastern Morning News, Sussex Daily News, Leicester Post, East Anglian Daily Times, Manchester Courier, Essex Telegraph, Kingston News, Liverpool Courier, Times of India, Pioneer Mail, Bristol Times, Builder, Leeds Mercury, Burton Chronicle, Hampshire Telegraph, Architect, Yorkshire Post, Poole Herald, Sheffield Independent, Bristol Mercury, Wolverhampton Chronicle, Liverpool Daily Post, Oldham Standard, Tonbridge Telegraph, East Grinstead Observer, Brighouse Echo, Sanitary Record, Hemel Hempstead Gazette, Cork Hzaminer, Galignani Messenger, City Press, Weekly Free Press and Aberdeen Herald, Hertfordshire Mercury, Mining Journal, Reading Mercury, Local Government Chronicle, South Australian Register, Adelaide Advertiser, Surrey Advertiser, Blackpool Herald, Gazette News (Blackpool), Beckenham and Penge Advertiser, Tenby and County News*, &c., &c.

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